NACOmatic

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STT => 26
STX => 26

GENERAL INFORMATION

This Airport/Facility Directory is a Civil Flight Information Publication published and distributed every eight weeks by the FAA, Department of Transportation, National Aeronautical Navigation Services, Silver Spring, Maryland 20910. It is designed for use with Aeronautical Charts covering the conterminous United States, Puerto Rico and the Virgin Islands.

This directory contains all open to the public airports, seaplane bases and heliports, military facilities, and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally, this directory contains communications data, navigational facilities and certain special notices and procedures.

Military data contained within this publication is provided by the National Geospatial–Intelligence Agency and is intended to provide reference data for military and/or joint civil/military airports. Not all military data contained in this publication is applicable to civil users.

CORRECTIONS, COMMENTS, AND/OR PROCUREMENT

CRITICAL information such as equipment malfunction, abnormal field conditions, hazards to flight, etc., should be reported as soon as possible to the nearest FAA facility, either in person or by reverse charge telephone call.

FOR AIRPORT SUPPLEMENT REVISIONS FORM VISIT WEB SITE: http://nfdc.faa.gov/portal/airportchanges.do

FAA, Aeronautical Information Services, ATO–R, Rm. 626
800 Independence Ave., SW
Washington, DC 20591
Telephone 1–866–295–8236
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NOTICE: Changes must be received by the Aeronautical Information Services as soon as possible but not later than the ''cut-off'' dates listed below to assure publication on the desired effective date.

Effective Date	Airport Information Cut-off date	Airspace Information* Cut-off date
3 Jun 10	21 Apr 10	1 Apr 10
29 Jul 10	16 Jun 10	27 May 10
23 Sep 10	11 Aug 10	22 Jul 10
18 Nov 10	6 Oct 10	16 Sep 10
13 Jan 11	1 Dec 10	11 Nov 10
10 Mar 11	26 Jan 11	6 Jan 11

*Including changes to preferred routes and graphic depictions on charts.

FOR CHARTING ERRORS CONTACT:

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SSMC–4 Sta. #4435
1305 East West Highway
Silver Spring, MD 20910–3281
Telephone 1–800–626–3677
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Frequently asked questions (FAQs) are answered on our website at http://aeronav.faa.gov.
See the FAQs prior to contact via toll free number.

FOR PROCUREMENT CONTACT:

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Telephone 1–800–638–8972
Fax 301–436–6829
or any authorized chart agent.

New or Changed Information—To alert users of new information or changes to information from the previous issue, a vertical line will be portrayed in the outside margin and extending the full length of the new and/or revised data. This will not apply to the front cover or the airport/facility directory listing.

This Airport/Facility Directory comprises part of the following sections of the United States Aeronautical Information Publication (AIP): GEN, ENR and AD.

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ABBREVIATIONS

The following abbreviations/acronyms are those commonly used within this Directory. Other abbreviations/acronyms may be found in the Legend and are not duplicated below. The abbreviations presented are intended to represent grammatical variations of the basic form. (Example–''req'' may mean ''request'', ''requesting'', ''requested'', or ''requests'').

AAF	Army Air Field	byd	beyond
AB	Airbase	C	Commercial Circuit (Telephone)
abv	above	CGAF	Coast Guard Air Facility
ACC	Air Combat Command; Area Control Center	CGAS	Coast Guard Air Station
		CIV	Civil
acft	aircraft	clsd	closed
ADCC	Air Defense Control Center	comd	command
AER	approach end rwy	CONUS	Continental United States
AFB	Air Force Base	CSTMS	Customs
AFHP	Air Force Heliport	ctc	contact
afld	airfield	ctl	control
AFOD	US Army Flight Operations Detachment	dalgt	daylight
AFRC	Armed Forces Reserve Center/Air Force Reserve Command	Dec	December
		DIAP	DoD Instrument Approach Procedure
AFSS	Automated Flight Service Station	DoD	Department of Defense
AG	Agriculture	DSN	Defense Switching Network (Telephone)
A–GEAR	Arresting Gear	dsplcd	displaced
AGL	above ground level	durn	duration
AHP	Army heliport	eff	effective
ALS	Approach Light System	emerg	emergency
alt	altitude	EOR	End of Runway
AMC	Air Mobility Command	ETA	Estimated Time of Arrival
ANGS	Air National Guard Station	ETD	Estimated Time of Departure
apch	approach	exc	except
Apr	April	extd	extend
APU	Auxiliary Power Unit	FBO	fixed–base operator
ARB	Air Reserve Base	Feb	February
arpt	airport	fld	field
ARS	Air Reserve Station	FLIP	Flight Information Publication
AS	Air Station	flt	flight
ASDE–X	Airport Surface Detection Equipment—Model X	flw	follow
		Fri	Friday
ASU	Aircraft Starting Unit	FSS	Flight Service Station
ATC	Air Traffic Control	GA	glide angle
Aug	August	GCA	Ground Controlled Approach
AUW	All Up Weight (gross weight)	GS	glide slope
avbl	available	haz	hazard
bcn	beacon	HQ	Headquarters
blo	below		

CONTINUED ON NEXT PAGE

CONTINUED FROM PRECEDING PAGE

hr	hour
IAP	Instrument Approach Procedure
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IM	Inner Marker
IMG	Immigration
incr	increase
indef	indefinite
ints	intensity
invof	in the vicinity of
IMC	Instrument Meteorological Conditions
Jan	January
JASU	Jet Aircraft Starting Unit
JOAP	Joint Oil Analysis Program
JOSAC	Joint Operational Support Airlift Center
JRB	Joint Reserve Base
Jul	July
Jun	June
Kt	Knots
LAA	Local Airport Advisory
LAHSO	Land and Hold Short Operations
lbs	pounds
ldg	landing
lgtd	lighted
lgts	lights
LMM	Compass locator at Middle Marker ILS
LOC	Localizer
LOM	Compass locator at Outer Marker ILS
ltd	limited
MACC	Military Area Control Center
Mar	March
MCAF	Marine Corps Air Facility
MCALF	Marine Corps Auxiliary Landing Field
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
med	medium
METRO	Pilot-to-Metro voice call
Mil	military
min	minute
MLS	Microwave Landing System
MM	Middle Marker of ILS
Mon	Monday
MP	Maintenance Period
MSL	mean sea level
MSAW	minimum safe altitude warning
NAAS	Naval Auxiliary Air Station
NADC	Naval Air Development Center
NADEP	Naval Air Depot
NAEC	Naval Air Engineering Center
NAES	Naval Air Engineering Station
NAF	Naval Air Facility
NALCO	Naval Air Logistics Control Office
NALO	Navy Air Logistics Office
NALF	Naval Auxiliary Landing Field
NAS	Naval Air Station
NAWC	Naval Air Warfare Center
NAWS	Naval Air Weapons Station
ngt	night
NOLF	Naval Outlying Field
Nov	November
npi	non precision instrument
NS ABTMT	Noise Abatement
NSTD	nonstandard
ntc	notice
obsn	observation
Oct	October
OLF	Outlying Field
opr	operate, operator, operational
ops	operations
OTS	out of service
ovrn	overrun
PAEW	personnel and equipment working
pat	pattern
p-line	power line
PMSV	Pilot-to-Metro Service
POL	Petrol, Oils and Lubricants
PPR	prior permission required
PRM	Precision Runway Monitoring
PTD	Pilot to Dispatcher
RAMCC	Regional Air Movement Control Center
req	request
rgt tfc	right traffic
RON	Remain Overnight
rqr	require
rstd	restricted
RSRS	reduced same runway separation
rwy	runway
Sat	Saturday
SELF	Strategic Expeditionary Landing Field
Sep	September
SFA	Single Frequency Approach
sfc	surface
SFRA	Special Flight Rules Area
SOAP	Spectrometric Oil Analysis Program
SOF	Supervisor of Flying
SPB	Seaplane Base
SR	sunrise
SS	sunset
std	standard
Sun	Sunday
svc	service
tfc	traffic
thld	threshold
Thu	Thursday
tkf	take-off
tmpry	temporary
tran	transient
Tue	Tuesday
twr	tower
twy	taxiway
UC	Under Construction
USA	United States Army
USAF	United States Air Force
USCG	United States Coast Guard
USN	United States Navy
V	Defense Switching Network (telephone, formerly AUTOVON)
VFR	Visual Flight Rules
VIP	Very Important Person
VMC	Visual Meteorological Conditions
Wed	Wednesday
wx	weather

SAMPLE

CITY NAME

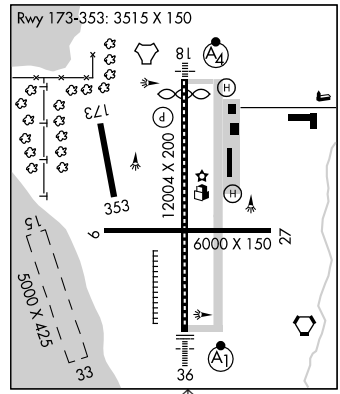
AIRPORT NAME (ALTERNATE NAME) (LTS) (KLTS) CIV/MIL 3 N UTC–6(–5DT) N34°41.93′ W99°20.20′ **JACKSONVILLE**
200 B S4 **FUEL** 100 0X 1 TPA—1000(800) AOE Class IV, ARFF Index A NOTAM FILE ORL Not insp. **COPTER**
H–4G, L–19C
IAP, DIAP, AD

(21) **RWY 18–36:** H12004X200 (ASPH–CONC–GRVD)
S–90, D–160, DT–300 PCN 80 R/B/W/T HIRL CL
RWY 18: LDIN. MALSF. TDZL. REIL. PAPI(P2R)—GA 3.0° TCH 36′.
Thld dsplcd 300′. Trees. Rgt tfc. 0.3% up.
RWY 36: ALSF1. 0.4% down.
RWY 09–27: H6000X150 (ASPH) MIRL
RWY 173–353: H3515X150 (ASPH–PFC) AUW PCN 59 F/A/W/T

LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 18	09–27	6500
RWY 36	09–27	5400

RUNWAY DECLARED DISTANCE INFORMATION
RWY 18: TORA–12004 TODA–12704 ASDA–11704 LDA–11504
RWY 36: TORA–12004 TODA–12004 ASDA–12004 LDA–11704



(22) **ARRESTING GEAR/SYSTEM**
RWY 18 → HOOK E5 (65′ OVRN) BAK–14 BAK–12B (1650′)
BAK–14 BAK–12 (B) (1087′) HOOK E5 (74′ OVRN) ← **RWY 36**

(23) **MILITARY SERVICE: A–GEAR** E–5 connected on dep end, disconnected on apch end. **JASU** 3(AM32A–60) 2(A/M32A–86)

(24)

(25) **FUEL** J8(Mil) (NC–100, A) **FLUID** W SP PRESAIR LOX (26)

OIL 0–128 **TRAN ALERT** Avbl 1300–0200Z‡, svc limited weekends.

(27) (28)

(10)

(29) **AIRPORT REMARKS:** Special Air Traffic Rules—Part 93, see Regulatory Notices. Attended 1200–0300Z‡. Parachute Jumping. Deer invof arpt. Heavy jumbo jet training surface to 9000′. Twy A clsd indef. Flight Notification Service (ADCUS) avbl.

(30) **MILITARY REMARKS: ANG** PPR/Official Business Only. Base OPS DSN 638–4390, C503–335–4222. Ctc Base OPS 15 minutes prior to ldg and after dep. Limited tran parking.

(31) **WEATHER DATA SOURCES:** AWOS–1 120.3 (202) 426–8000. LLWAS.

(32) **COMMUNICATIONS: SFA** **ATIS** 127.25 273.5 (202) 426–8003 **UNICOM** 122.95 **PTD** 372.2
NAME FSS (ORL) on arpt. 123.65 122.65 122.2
NAME RCO 112.2T 112.1R (NAME RADIO)
Ⓡ **NAME APP/DEP CON** 128.35 257.725 (1200–0400Z‡)
TOWER 119.65 255.6 (1200–0400Z‡) **GND CON** 121.7 **GCO** 135.075 (ORLANDO CLNC) **CLNC DEL** 125.55
NAME COMD POST (GERONIMO) 311.0 321.4 6761 **PMSV METRO** 239.8 **NAME OPS** 257.5

(33) **AIRSPACE: CLASS B** See VFR Terminal Area Chart.

(34) **RADIO AIDS TO NAVIGATION:** NOTAM FILE ORL. VHF/DF ctc FSS.
(H) VORTAC 112.2 MCO Chan 59 N28°32.55′ W81°20.12′ at fld. 1110/8E.
(H) TACAN Chan 29 CBU (109.2) N28°32.65′ W81°21.12′ at fld. 1115/8E.
HERNY NDB (LOM) 221 OR N28°37.40′ W81°21.05′ 177° 5.4 NM to fld.
ILS/DME 108.5 I–ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.
ASR/PAR (1200–0400Z‡)

(35) **COMM/NAV/WEATHER REMARKS:** Emerg frequency 121.5 not avbl at twr.

HELIPAD H1: H100X75 (ASPH)
HELIPAD H2: H60X60 (ASPH)
HELIPORT REMARKS: Helipad H1 lctd on general aviation side and H2 lctd on air carrier side of arpt.

(1)

187 TPA 1000(813)
WATERWAY 15–33: 5000X425 (WATER)
SEAPLANE REMARKS: Birds roosting and feeding areas along river banks. Seaplanes operating adjacent to SW side of arpt not visible from twr and are required to ctc twr.

All bearings and radials are magnetic unless otherwise specified.
All mileages are nautical unless otherwise noted.
All times are Coordinated Universal Time (UTC) except as noted.
All elevations are in feet above/below Mean Sea Level (MSL) unless otherwise noted.
The horizontal reference datum of this publication is North American Datum of 1983 (NAD83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).

(10)

SKETCH LEGEND

RUNWAYS/LANDING AREAS

Hard Surfaced

Metal Surface

Sod, Gravel, etc.

Light Plane, ...
Ski Landing Area or Water

Under Construction

Closed

Helicopter Landings Area (H)

Displaced Threshold

Taxiway, Apron and Stopways . .

MISCELLANEOUS BASE AND CULTURAL FEATURES

Buildings

Power Lines —T——T—

Fence

Towers

Tanks

Oil Well

Smoke Stack

Obstruction 5812

Controlling Obstruction +5812

Trees

Populated Places

Cuts and Fills Cut Fill

Cliffs and Depressions . .

Ditch

Hill

RADIO AIDS TO NAVIGATION

VORTAC . . . VOR

VOR/DME . . NDB

TACAN NDB/DME

MISCELLANEOUS AERONAUTICAL FEATURES

Airport Beacon

Wind Cone

Landing Tee

Tetrahedron

Control Tower

APPROACH LIGHTING SYSTEMS

A dot " • " portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g. (A1) Negative symbology, e.g., (A1) (V) indicates Pilot Controlled Lighting (PCL).

Runway Centerline Lighting

(A) Approach Lighting System ALSF-2 . .

(A1) Approach Lighting System ALSF-1 . .

(A2) Short Approach Lighting System SALS/SALSF

(A3) Simplified Short Approach Lighting System (SSALR) with RAIL

(A4) Medium Intensity Approach Lighting System (MALS and MALSF)/(SSALS and SSALF)

(A5) Medium Intensity Approach Lighting System (MALSR) and RAIL

Omnidirectional Approach Lighting System (ODALS)

(D) Navy Parallel Row and Cross Bar . . .

(‡) Air Force Overrun

(V) Visual Approach Slope Indicator with Standard Threshold Clearance provided

(V2) Pulsating Visual Approach Slope Indicator (PVASI)

(V3) Visual Approach Slope Indicator with a threshold crossing height to accomodate long bodied or jumbo aircraft

(V4) Tri-color Visual Approach Slope Indicator (TRCV)

(V5) Approach Path Alignment Panel (APAP)

(P) Precision Approach Path Indicator (PAPI)

LEGEND

This directory is a listing of data on record with the FAA on all open to the public airports, military facilities and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally this listing contains data for associated terminal control facilities, air route traffic control centers, and radio aids to navigation within the conterminous United States, Puerto Rico and the Virgin Islands. Joint civil/military and civil airports are listed alphabetically by state, associated city and airport name and cross-referenced by airport name. Military facilities are listed alphabetically by state and official airport name and cross-referenced by associated city name. Navaids, flight service stations and remote communication outlets that are associated with an airport, but with a different name, are listed alphabetically under their own name, as well as under the airport with which they are associated.

The listing of an open to the public airport in this directory merely indicates the airport operator's willingness to accommodate transient aircraft, and does not represent that the facility conforms with any Federal or local standards, or that it has been approved for use on the part of the general public. Military and private use facilities published in this directory are open to civil pilots only in an emergency or with prior permission. See Special Notice Section, Civil Use of Military Fields.

The information on obstructions is taken from reports submitted to the FAA. Obstruction data has not been verified in all cases. Pilots are cautioned that objects not indicated in this tabulation (or on the airports sketches and/or charts) may exist which can create a hazard to flight operation. Detailed specifics concerning services and facilities tabulated within this directory are contained in the Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

The legend items that follow explain in detail the contents of this Directory and are keyed to the circled numbers on the sample on the preceding pages.

(1) CITY/AIRPORT NAME

Civil and joint civil/military airports and facilities in this directory are listed alphabetically by state and associated city. Where the city name is different from the airport name the city name will appear on the line above the airport name. Airports with the same associated city name will be listed alphabetically by airport name and will be separated by a dashed rule line. A solid rule line will separate all others. FAA approved helipads and seaplane landing areas associated with a land airport will be separated by a dotted line. Military airports are listed alphabetically by state and official airport name.

(2) ALTERNATE NAME

Alternate names, if any, will be shown in parentheses.

(3) LOCATION IDENTIFIER

The location identifier is a three or four character FAA code followed by a four-character ICAO code assigned to airports. ICAO codes will only be published at joint civil/military, and military facilities. If two different military codes are assigned, both codes will be shown with the primary operating agency's code listed first. These identifiers are used by ATC in lieu of the airport name in flight plans, flight strips and other written records and computer operations. Zeros will appear with a slash to differentiate them from the letter ''O''.

(4) OPERATING AGENCY

Airports within this directory are classified into two categories, Military/Federal Government and Civil airports open to the general public, plus selected private use airports. The operating agency is shown for military, private use and joint civil/military airports. The operating agency is shown by an abbreviation as listed below. When an organization is a tenant, the abbreviation is enclosed in parenthesis. No classification indicates the airport is open to the general public with no military tenant.

A	US Army	MC	Marine Corps
AFRC	Air Force Reserve Command	N	Navy
AF	US Air Force	NAF	Naval Air Facility
ANG	Air National Guard	NAS	Naval Air Station
AR	US Army Reserve	NASA	National Air and Space Administration
ARNG	US Army National Guard	P	US Civil Airport Wherein Permit Covers Use by Transient Military Aircraft
CG	US Coast Guard		
CIV/MIL	Joint Use Civil/Military	PVT	Private Use Only (Closed to the Public)
DND	Department of National Defense Canada		

(5) AIRPORT LOCATION

Airport location is expressed as distance and direction from the center of the associated city in nautical miles and cardinal points, e.g., 4 NE.

(6) TIME CONVERSION

Hours of operation of all facilities are expressed in Coordinated Universal Time (UTC) and shown as ''Z'' time. The directory indicates the number of hours to be subtracted from UTC to obtain local standard time and local daylight saving time UTC–5(–4DT). The symbol ‡ indicates that during periods of Daylight Saving Time effective hours will be one hour earlier than shown. In those areas where daylight saving time is not observed the (–4DT) and ‡ will not be shown. Daylight saving time is in effect from 0200 local time the second Sunday in March to 0200 local time the first Sunday in November. Canada and all U.S. Conterminous States observe daylight saving time except Arizona and Puerto Rico, and the Virgin Islands. If the state observes daylight saving time and the operating times are other than daylight saving times, the operating hours will include the dates, times and no ‡ symbol will be shown, i.e., April 15–Aug 31 0630–1700Z, Sep 1–Apr 14 0600–1700Z.

⑦ GEOGRAPHIC POSITION OF AIRPORT—AIRPORT REFERENCE POINT (ARP)

Positions are shown as hemisphere, degrees, minutes and hundredths of a minute and represent the approximate geometric center of all usable runway surfaces.

⑧ CHARTS

Charts refer to the Sectional Chart and Low and High Altitude Enroute Chart and panel on which the airport or facility is located. Helicopter Chart locations will be indicated as COPTER. IFR Gulf of Mexico West and IFR Gulf of Mexico Central will be depicted as GOMW and GOMC.

⑨ INSTRUMENT APPROACH PROCEDURES, AIRPORT DIAGRAMS

IAP indicates an airport for which a prescribed (Public Use) FAA Instrument Approach Procedure has been published. DIAP indicates an airport for which a prescribed DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures. See the Special Notice Section of this directory, Civil Use of Military Fields and the Aeronautical Information Manual 5–4–5 Instrument Approach Procedure Charts for additional information. AD indicates an airport for which an airport diagram has been published. Airport diagrams are located in the back of each A/FD volume alphabetically by associated city and airport name.

⑩ AIRPORT SKETCH

The airport sketch, when provided, depicts the airport and related topographical information as seen from the air and should be used in conjunction with the text. It is intended as a guide for pilots in VFR conditions. Symbology that is not self-explanatory will be reflected in the sketch legend. The airport sketch will be oriented with True North at the top. Airport sketches will be added incrementally.

⑪ ELEVATION

The highest point of an airport's usable runways measured in feet from mean sea level. When elevation is sea level it will be indicated as ''00''. When elevation is below sea level a minus ''−'' sign will precede the figure.

⑫ ROTATING LIGHT BEACON

B indicates rotating beacon is available. Rotating beacons operate sunset to sunrise unless otherwise indicated in the AIRPORT REMARKS or MILITARY REMARKS segment of the airport entry.

⑬ SERVICING—CIVIL

S1: Minor airframe repairs.
S2: Minor airframe and minor powerplant repairs.
S3: Major airframe and minor powerplant repairs.
S4: Major airframe and major powerplant repairs.
S5: Major airframe repairs.
S6: Minor airframe and major powerplant repairs.
S7: Major powerplant repairs.
S8: Minor powerplant repairs.

⑭ FUEL

CODE	FUEL
80	Grade 80 gasoline (Red)
100	Grade 100 gasoline (Green)
100LL	100LL gasoline (low lead) (Blue)
115	Grade 115 gasoline (115/145 military specification) (Purple)
A	Jet A, Kerosene, without FS–II*, FP** minus 40° C.
A+	Jet A, Kerosene, with FS–II*, FP** minus 40°C.
A1	Jet A–1, Kerosene, without FS–II*, FP** minus 47°C.
A1+	Jet A–1, Kerosene with FS–II*, FP** minus 47° C.
B	Jet B, Wide-cut, turbine fuel without FS–II*, FP** minus 50° C.
B+	Jet B, Wide-cut, turbine fuel with FS–II*, FP** minus 50° C.
J4 (JP4)	(JP–4 military specification) FP** minus 58° C.
J5 (JP5)	(JP–5 military specification) Kerosene with FS–11, FP** minus 46°C.
J8 (JP8)	(JP–8 military specification) Jet A–1, Kerosene with FS–II*, FP** minus 47°C.
J8+100	(JP–8 military specification) Jet A–1, Kerosene with FS–II*, FP** minus 47°C, with-fuel additive package that improves thermo stability characteristics of JP–8.
J	(Jet Fuel Type Unknown)
MOGAS	Automobile gasoline which is to be used as aircraft fuel.

*(Fuel System Icing Inhibitor)
**(Freeze Point)

NOTE: Certain automobile gasoline may be used in specific aircraft engines if a FAA supplemental type certificate has been obtained. Automobile gasoline, which is to be used in aircraft engines, will be identified as ''MOGAS'', however, the grade/type and other octane rating will not be published.

Data shown on fuel availability represents the most recent information the publisher has been able to acquire. Because of a variety of factors, the fuel listed may not always be obtainable by transient civil pilots. Confirmation of availability of fuel should be made directly with fuel suppliers at locations where refueling is planned.

⑮ OXYGEN—CIVIL

OX 1 High Pressure
OX 2 Low Pressure
OX 3 High Pressure—Replacement Bottles
OX 4 Low Pressure—Replacement Bottles

⑯ TRAFFIC PATTERN ALTITUDE

Traffic Pattern Altitude (TPA)—The first figure shown is TPA above mean sea level. The second figure in parentheses is TPA above airport elevation. Multiple TPA shall be shown as ''TPA—See Remarks'' and detailed information shall be shown in the Airport or Military Remarks Section. Traffic pattern data for USAF bases, USN facilities, and U.S. Army airports (including those on which ACC or U.S. Army is a tenant) that deviate from standard pattern altitudes shall be shown in Military Remarks.

⑰ AIRPORT OF ENTRY, LANDING RIGHTS, AND CUSTOMS USER FEE AIRPORTS

U.S. CUSTOMS USER FEE AIRPORT—Private Aircraft operators are frequently required to pay the costs associated with customs processing.

AOE—Airport of Entry. A customs Airport of Entry where permission from U.S. Customs is not required to land. However, at least one hour advance notice of arrival is required.

LRA—Landing Rights Airport. Application for permission to land must be submitted in advance to U.S. Customs. At least one hour advance notice of arrival is required.

NOTE: Advance notice of arrival at both an AOE and LRA airport may be included in the flight plan when filed in Canada or Mexico. Where Flight Notification Service (ADCUS) is available the airport remark will indicate this service. This notice will also be treated as an application for permission to land in the case of an LRA. Although advance notice of arrival may be relayed to Customs through Mexico, Canada, and U.S. Communications facilities by flight plan, the aircraft operator is solely responsible for ensuring that Customs receives the notification. (See Customs, Immigration and Naturalization, Public Health and Agriculture Department requirements in the International Flight Information Manual for further details.)

US Customs Air and Sea Ports, Inspectors and Agents

Northeast Sector (New England and Atlantic States—ME to MD)	407–975–1740
Southeast Sector (Atlantic States—DC, WV, VA to FL)	407–975–1780
Central Sector (Interior of the US, including Gulf states—MS, AL, LA)	407–975–1760
Southwest East Sector (OK and eastern TX)	407–975–1840
Southwest West Sector (Western TX, NM and AZ)	407–975–1820
Pacific Sector (WA, OR, CA, HI and AK)	407–975–1800

⑱ CERTIFICATED AIRPORT (14 CFR PART 139)

Airports serving Department of Transportation certified carriers and certified under 14 CFR part 139 are indicated by the Class and the ARFF Index; e.g. Class I, ARFF Index A, which relates to the availability of crash, fire, rescue equipment. Class I airports can have an ARFF Index A through E, depending on the aircraft length and scheduled departures. Class II, III, and IV will always carry an Index A.

14 CFR PART 139 CERTIFICATED AIRPORTS
AIRPORT CLASSIFICATIONS

Type of Air Carrier Operation	Class I	Class II	Class III	Class IV
Scheduled Air Carrier Aircraft with 31 or more passenger seats	X			
Unscheduled Air Carrier Aircraft with 31 or more passengers seats	X	X		X
Scheduled Air Carrier Aircraft with 10 to 30 passenger seats	X	X	X	

14 CFR–PART 139 CERTIFICATED AIRPORTS

INDICES AND AIRCRAFT RESCUE AND FIRE FIGHTING EQUIPMENT REQUIREMENTS

Airport Index	*Required No. Vehicles*	*Aircraft Length*	*Scheduled Departures*	*Agent + Water for Foam*
A	1	<90′	≥1	500#DC or HALON 1211 or 450#DC + 100 gal H_2O
B	1 or 2	≥90′, <126′	≥5	Index A + 1500 gal H_2O
		≥126′, <159′	<5	
C	2 or 3	≥126′, <159′	≥5	Index A + 3000 gal H_2O
		≥159′, <200′	<5	
D	3	≥159′, <200′		Index A + 4000 gal H_2O
		>200′	<5	
E	3	≥200′	≥5	Index A + 6000 gal H_2O

> Greater Than; < Less Than; ≥ Equal or Greater Than; ≤ Equal or Less Than; H_2O–Water; DC–Dry Chemical.

NOTE: The listing of ARFF index does not necessarily assure coverage for non-air carrier operations or at other than prescribed times for air carrier. ARFF Index Ltd.—indicates ARFF coverage may or may not be available, for information contact airport manager prior to flight.

⑲ NOTAM SERVICE

All public use landing areas are provided NOTAM ''D'' (distant dissemination) and NOTAM ''L'' (local dissemination) service. Airport NOTAM file identifier is shown for individual airports, e.g. ''NOTAM FILE IAD''. See AIM, Basic Flight Information and

ATC Procedures for detailed description of NOTAM's. Current NOTAMs are available from Flight Service Stations at 1–800–WX–BRIEF. Real time Military NOTAMs are available using the DoD Internet NOTAM Distribution System (DINS) www.notams.jcs.mil.

⑳ FAA INSPECTION

All airports not inspected by FAA will be identified by the note: Not insp. This indicates that the airport information has been provided by the owner or operator of the field.

㉑ RUNWAY DATA

Runway information is shown on two lines. That information common to the entire runway is shown on the first line while information concerning the runway ends is shown on the second or following line. Runway direction, surface, length, width, weight bearing capacity, lighting, and slope, when available are shown for each runway. Multiple runways are shown with the longest runway first. Direction, length, width, and lighting are shown for sea-lanes. The full dimensions of helipads are shown, e.g., 50X150. Runway data that requires clarification will be placed in the remarks section.

RUNWAY DESIGNATION

Runways are normally numbered in relation to their magnetic orientation rounded off to the nearest 10 degrees. Parallel runways can be designated L (left)/R (right)/C (center). Runways may be designated as Ultralight or assault strips. Assault strips are shown by magnetic bearing.

RUNWAY DIMENSIONS

Runway length and width are shown in feet. Length shown is runway end to end including displaced thresholds, but excluding those areas designed as overruns.

RUNWAY SURFACE AND LENGTH

Runway lengths prefixed by the letter ''H'' indicate that the runways are hard surfaced (concrete, asphalt, or part asphalt–concrete). If the runway length is not prefixed, the surface is sod, clay, etc. The runway surface composition is indicated in parentheses after runway length as follows:

(AFSC)—Aggregate friction seal coat
(ASPH)—Asphalt
(CONC)—Concrete
(DIRT)—Dirt
(GRVD)—Grooved
(GRVL)—Gravel, or cinders
(MATS)—Pierced steel planking, landing mats, membranes
(PEM)—Part concrete, part asphalt
(PFC)—Porous friction courses
(PSP)—Pierced steel plank
(RFSC)—Rubberized friction seal coat
(TURF)—Turf
(TRTD)—Treated
(WC)—Wire combed

RUNWAY WEIGHT BEARING CAPACITY

Runway strength data shown in this publication is derived from available information and is a realistic estimate of capability at an average level of activity. It is not intended as a maximum allowable weight or as an operating limitation. Many airport pavements are capable of supporting limited operations with gross weights in excess of the published figures. Permissible operating weights, insofar as runway strengths are concerned, are a matter of agreement between the owner and user. When desiring to operate into any airport at weights in excess of those published in the publication, users should contact the airport management for permission. Runway strength figures are shown in thousand of pounds, with the last three figures being omitted. Add 000 to figure following S, D, 2S, 2T, AUW, SWL, etc., for gross weight capacity. A blank space following the letter designator is used to indicate the runway can sustain aircraft with this type landing gear, although definite runway weight bearing capacity figures are not available, e.g., S, D. Applicable codes for typical gear configurations with S=Single, D=Dual, T=Triple and Q=Quadruple:

CURRENT	NEW	NEW DESCRIPTION
S	S	Single wheel type landing gear (DC3), (C47), (F15), etc.
D	D	Dual wheel type landing gear (BE1900), (B737), (A319), etc.
T	D	Dual wheel type landing gear (P3, C9).
ST	2S	Two single wheels in tandem type landing gear (C130).
TRT	2T	Two triple wheels in tandem type landing gear (C17), etc.
DT	2D	Two dual wheels in tandem type landing gear (B707), etc.
TT	2D	Two dual wheels in tandem type landing gear (B757, KC135).
SBTT	2D/D1	Two dual wheels in tandem/dual wheel body gear type landing gear (KC10).
None	2D/2D1	Two dual wheels in tandem/two dual wheels in tandem body gear type landing gear (A340–600).
DDT	2D/2D2	Two dual wheels in tandem/two dual wheels in double tandem body gear type landing gear (B747, E4).
TTT	3D	Three dual wheels in tandem type landing gear (B777), etc.
TT	D2	Dual wheel gear two struts per side main gear type landing gear (B52).
TDT	C5	Complex dual wheel and quadruple wheel combination landing gear (C5).

AUW—All up weight. Maximum weight bearing capacity for any aircraft irrespective of landing gear configuration.
SWL—Single Wheel Loading. (This includes information submitted in terms of Equivalent Single Wheel Loading (ESWL) and Single Isolated Wheel Loading).
PSI—Pounds per square inch. PSI is the actual figure expressing maximum pounds per square inch runway will support, e.g., (SWL 000/PSI 535).

Omission of weight bearing capacity indicates information unknown.

The ACN/PCN System is the ICAO standard method of reporting pavement strength for pavements with bearing strengths greater than 12,500 pounds. The Pavement Classification Number (PCN) is established by an engineering assessment of the runway. The PCN is for use in conjunction with an Aircraft Classification Number (ACN). Consult the Aircraft Flight Manual, Flight Information Handbook, or other appropriate source for ACN tables or charts. Currently, ACN data may not be available for all aircraft. If an ACN table or chart is available, the ACN can be calculated by taking into account the aircraft weight, the pavement type, and the subgrade category. For runways that have been evaluated under the ACN/PCN system, the PCN will be shown as a five-part code (e.g. PCN 80 R/B/W/T). Details of the coded format are as follows:

(1) The PCN NUMBER—The reported PCN indicates that an aircraft with an ACN equal or less than the reported PCN can operate on the pavement subject to any limitation on the tire pressure.

(2) The type of pavement:
R — Rigid
F — Flexible

(3) The pavement subgrade category:
A — High
B — Medium
C — Low
D — Ultra-low

(4) The maximum tire pressure authorized for the pavement:
W — High, no limit
X — Medium, limited to 217 psi
Y — Low, limited to 145 psi
Z — Very low, limited to 73 psi

(5) Pavement evaluation method:
T — Technical evaluation
U — By experience of aircraft using the pavement

NOTE: Prior permission from the airport controlling authority is required when the ACN of the aircraft exceeds the published PCN or aircraft tire pressure exceeds the published limits.

RUNWAY LIGHTING

Lights are in operation sunset to sunrise. Lighting available by prior arrangement only or operating part of the night and/or pilot controlled lighting with specific operating hours are indicated under airport or military remarks. At USN/USMC facilities lights are available only during airport hours of operation. Since obstructions are usually lighted, obstruction lighting is not included in this code. Unlighted obstructions on or surrounding an airport will be noted in airport or military remarks. Runway lights nonstandard (NSTD) are systems for which the light fixtures are not FAA approved L-800 series: color, intensity, or spacing does not meet FAA standards. Nonstandard runway lights, VASI, or any other system not listed below will be shown in airport remarks or military service. Temporary, emergency or limited runway edge lighting such as flares, smudge pots, lanterns or portable runway lights will also be shown in airport remarks or military service. Types of lighting are shown with the runway or runway end they serve.

NSTD—Light system fails to meet FAA standards.
LIRL—Low Intensity Runway Lights.
MIRL—Medium Intensity Runway Lights.
HIRL—High Intensity Runway Lights.
RAIL—Runway Alignment Indicator Lights.
REIL—Runway End Identifier Lights.
CL—Centerline Lights.
TDZL—Touchdown Zone Lights.
ODALS—Omni Directional Approach Lighting System.
AF OVRN—Air Force Overrun 1000′ Standard Approach Lighting System.
LDIN—Lead-In Lighting System.
MALS—Medium Intensity Approach Lighting System.
MALSF—Medium Intensity Approach Lighting System with Sequenced Flashing Lights.
MALSR—Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights.
SALS—Short Approach Lighting System.
SALSF—Short Approach Lighting System with Sequenced Flashing Lights.
SSALS—Simplified Short Approach Lighting System.
SSALF—Simplified Short Approach Lighting System with Sequenced Flashing Lights.
SSALR—Simplified Short Approach Lighting System with Runway Alignment Indicator Lights.
ALSAF—High Intensity Approach Lighting System with Sequenced Flashing Lights.
ALSF1—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category I, Configuration.
ALSF2—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category II, Configuration.
SF—Sequenced Flashing Lights.
OLS—Optical Landing System.
WAVE–OFF.

NOTE: Civil ALSF2 may be operated as SSALR during favorable weather conditions. When runway edge lights are positioned more than 10 feet from the edge of the usable runway surface a remark will be added in the ''Remarks'' portion of the airport entry. This is applicable to Air Force, Air National Guard and Air Force Reserve Bases, and those joint civil/military airfields on which they are tenants.

VISUAL GLIDESLOPE INDICATORS

APAP—A system of panels, which may or may not be lighted, used for alignment of approach path.

PNIL	APAP on left side of runway	PNIR	APAP on right side of runway

PAPI—Precision Approach Path Indicator

P2L	2-identical light units placed on left side of runway	P4L	4-identical light units placed on left side of runway
P2R	2-identical light units placed on right side of runway	P4R	4-identical light units placed on right side of runway

PVASI—Pulsating/steady burning visual approach slope indicator, normally a single light unit projecting two colors.

PSIL	PVASI on left side of runway	PSIR	PVASI on right side of runway

SAVASI—Simplified Abbreviated Visual Approach Slope Indicator

S2L	2-box SAVASI on left side of runway	S2R	2-box SAVASI on right side of runway

TRCV—Tri-color visual approach slope indicator, normally a single light unit projecting three colors.

TRIL	TRCV on left side of runway	TRIR	TRCV on right side of runway

VASI—Visual Approach Slope Indicator

V2L	2-box VASI on left side of runway	V6L	6-box VASI on left side of runway
V2R	2-box VASI on right side of runway	V6R	6-box VASI on right side of runway
V4L	4-box VASI on left side of runway	V12	12-box VASI on both sides of runway
V4R	4-box VASI on right side of runway	V16	16-box VASI on both sides of runway

NOTE: Approach slope angle and threshold crossing height will be shown when available; i.e., –GA 3.5° TCH 37′.

PILOT CONTROL OF AIRPORT LIGHTING

Key Mike	Function
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-Off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-Off)

Available systems will be indicated in the airport or military remarks, e.g., ACTIVATE HIRL Rwy 07–25, MALSR Rwy 07, and VASI Rwy 07—122.8.

Where the airport is not served by an instrument approach procedure and/or has an independent type system of different specification installed by the airport sponsor, descriptions of the type lights, method of control, and operating frequency will be explained in clear text. See AIM, ''Basic Flight Information and ATC Procedures,'' for detailed description of pilot control of airport lighting.

RUNWAY SLOPE

When available, runway slope data will only be provided for those airports with an approved FAA instrument approach procedure. Runway slope will be shown only when it is 0.3 percent or greater. On runways less than 8000 feet, the direction of the slope up will be indicated, e.g., 0.3% up NW. On runways 8000 feet or greater, the slope will be shown (up or down) on the runway end line, e.g., RWY 13: 0.3% up., RWY 21: Pole. Rgt tfc. 0.4% down.

RUNWAY END DATA

Information pertaining to the runway approach end such as approach lights, touchdown zone lights, runway end identification lights, visual glideslope indicators, displaced thresholds, controlling obstruction, and right hand traffic pattern, will be shown on the specific runway end. ''Rgt tfc''—Right traffic indicates right turns should be made on landing and takeoff for specified runway end.

LAND AND HOLD SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for ''Land and Hold Short Operations.'' These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold–short operations and markings.

RUNWAY DECLARED DISTANCE INFORMATION

TORA—Take-off Run Available. The length of runway declared available and suitable for the ground run of an aeroplane take–off.

TODA—Take-off Distance Available. The length of the take–off run available plus the length of the clearway, if provided.

ASDA—Accelerate-Stop Distance Available. The length of the take–off run available plus the length of the stopway, if provided.

LDA—Landing Distance Available. The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

(22) ARRESTING GEAR/SYSTEMS

Arresting gear is shown as it is located on the runway. The a–gear distance from the end of the appropriate runway (or into the overrun) is indicated in parentheses. A–Gear which has a bi–direction capability and can be utilized for emergency approach end engagement is indicated by a (B). The direction of engaging device is indicated by an arrow. Up to 15 minutes advance notice may be required for rigging A–Gear for approach and engagement. Airport listing may show availability of other than US Systems. This information is provided for emergency requirements only. Refer to current aircraft operating manuals for specific engagement weight and speed criteria based on aircraft structural restrictions and arresting system limitations.

Following is a list of current systems referenced in this publication identified by both Air Force and Navy terminology:

BI–DIRECTIONAL CABLE (B)

TYPE	DESCRIPTION
BAK–9	Rotary friction brake.
BAK–12A	Standard BAK–12 with 950 foot run out, 1–inch cable and 40,000 pound weight setting. Rotary friction brake.
BAK–12B	Extended BAK–12 with 1200 foot run, 1¼ inch Cable and 50,000 pounds weight setting. Rotary friction brake.
E28	Rotary Hydraulic (Water Brake).
M21	Rotary Hydraulic (Water Brake) Mobile.

The following device is used in conjunction with some aircraft arresting systems:

BAK–14	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to five seconds to fully raise the cable.)
H	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to one and one–half seconds to fully raise the cable.)

UNI–DIRECTIONAL CABLE

TYPE	DESCRIPTION
MB60	Textile brake—an emergency one–time use, modular braking system employing the tearing of specially woven textile straps to absorb the kinetic energy.
E5/E5–1/E5–3	Chain Type. At USN/USMC stations E–5 A–GEAR systems are rated, e.g., E–5 RATING–13R–1100 HW (DRY), 31L/R–1200 STD (WET). This rating is a function of the A–GEAR chain weight and length and is used to determine the maximum aircraft engaging speed. A dry rating applies to a stabilized surface (dry or wet) while a wet rating takes into account the amount (if any) of wet overrun that is not capable of withstanding the aircraft weight. These ratings are published under Military Service.

FOREIGN CABLE

TYPE	DESCRIPTION	US EQUIVALENT
44B–3H	Rotary Hydraulic) (Water Brake)	
CHAG	Chain	E–5

UNI–DIRECTIONAL BARRIER

TYPE	DESCRIPTION
MA–1A	Web barrier between stanchions attached to a chain energy absorber.
BAK–15	Web barrier between stanchions attached to an energy absorber (water squeezer, rotary friction, chain). Designed for wing engagement.

NOTE: Landing short of the runway threshold on a runway with a BAK–15 in the underrun is a significant hazard. The barrier in the down position still protrudes several inches above the underrun. Aircraft contact with the barrier short of the runway threshold can cause damage to the barrier and substantial damage to the aircraft.

OTHER

TYPE	DESCRIPTION
EMAS	Engineered Material Arresting System, located beyond the departure end of the runway, consisting of high energy absorbing materials which will crush under the weight of an aircraft.

(23) MILITARY SERVICE

Specific military services available at the airport are listed under this general heading. Remarks applicable to any military service are shown in the individual service listing.

(24) JET AIRCRAFT STARTING UNITS (JASU)

The numeral preceding the type of unit indicates the number of units available. The absence of the numeral indicates ten or more units available. If the number of units is unknown, the number one will be shown. Absence of JASU designation indicates non–availability.

The following is a list of current JASU systems referenced in this publication:

USAF JASU (For variations in technical data, refer to T.O. 35–1–7.)

ELECTRICAL STARTING UNITS:

A/M32A–86	AC: 115/200v, 3 phase, 90 kva, 0.8 pf, 4 wire DC: 28v, 1500 amp, 72 kw (with TR pack)
MC–1A	AC: 115/208v, 400 cycle, 3 phase, 37.5 kva, 0.8 pf, 108 amp, 4 wire DC: 28v, 500 amp, 14 kw
MD–3	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD–3A	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD–3M	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 500 amp, 15 kw

MD–4	AC: 120/208v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 175 amp, ''WYE'' neutral ground, 4 wire, 120v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 303 amp, ''DELTA'' 3 wire, 120v, 400 cycle, 1 phase, 62.5 kva, 0.8 pf, 520 amp, 2 wire
AIR STARTING UNITS	
AM32–95	150 +/− 5 lb/min (2055 +/− 68 cfm) at 51 +/− 2 psia
AM32A–95	150 +/− 5 lb/min @ 49 +/− 2 psia (35 +/− 2 psig)
LASS	150 +/− 5 lb/min @ 49 +/− 2 psia
MA–1A	82 lb/min (1123 cfm) at 130° air inlet temp, 45 psia (min) air outlet press
MC–1	15 cfm, 3500 psia
MC–1A	15 cfm, 3500 psia
MC–2A	15 cfm, 200 psia
MC–11	8,000 cu in cap, 4000 psig, 15 cfm
COMBINED AIR AND ELECTRICAL STARTING UNITS:	
AGPU	AC: 115/200v, 400 cycle, 3 phase, 30 kw gen DC: 28v, 700 amp AIR: 60 lb/min @ 40 psig @ sea level
AM32A–60*	AIR: 120 +/− 4 lb/min (1644 +/− 55 cfm) at 49 +/− 2 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire, 120v, 1 phase, 25 kva DC: 28v, 500 amp, 15 kw
AM32A–60A	AIR: 150 +/− 5 lb/min (2055 +/− 68 cfm at 51 +/− psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw
AM32A–60B*	AIR: 130 lb/min, 50 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw

*NOTE: During combined air and electrical loads, the pneumatic circuitry takes preference and will limit the amount of electrical power available.

USN JASU

ELECTRICAL STARTING UNITS:	
NC–8A/A1	DC: 500 amp constant, 750 amp intermittent, 28v; AC: 60 kva @ .8 pf, 115/200v, 3 phase, 400 Hz.
NC–10A/A1/B/C	DC: 750 amp constant, 1000 amp intermittent, 28v; AC: 90 kva, 115/200v, 3 phase, 400 Hz.
AIR STARTING UNITS:	
GTC–85/GTE–85	120 lbs/min @ 45 psi.
MSU–200NAV/A/U47A–5	204 lbs/min @ 56 psia.
WELLS AIR START SYSTEM	180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. Simultaneous multiple start capability.
COMBINED AIR AND ELECTRICAL STARTING UNITS:	
NCPP–105/RCPT	180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. 700 amp, 28v DC. 120/208v, 400 Hz AC, 30 kva.
JASU (ARMY)	
59B2–1B	28v, 7.5 kw, 280 amp.
OTHER JASU	
ELECTRICAL STARTING UNITS (DND):	
CE12	AC 115/200v, 140 kva, 400 Hz, 3 phase
CE13	AC 115/200v, 60 kva, 400 Hz, 3 phase
CE14	AC/DC 115/200v, 140 kva, 400 Hz, 3 phase, 28vDC, 1500 amp
CE15	DC 22–35v, 500 amp continuous 1100 amp intermittent
CE16	DC 22–35v, 500 amp continuous 1100 amp intermittent soft start
AIR STARTING UNITS (DND):	
CA2	ASA 45.5 psig, 116.4 lb/min
COMBINED AIR AND ELECTRICAL STARTING UNITS (DND)	
CEA1	AC 120/208v, 60 kva, 400 Hz, 3 phase DC 28v, 75 amp AIR 112.5 lb/min, 47 psig
ELECTRICAL STARTING UNITS (OTHER)	
C–26	28v 45kw 115–200v 15kw 380–800 Hz 1 phase 2 wire
C–26–B, C–26–C	28v 45kw: Split Bus: 115–200v 15kw 380–800 Hz 1 phase 2 wire
E3	DC 28v/10kw
AIR STARTING UNITS (OTHER):	
A4	40 psi/2 lb/sec (LPAS Mk12, Mk12L, Mk12A, Mk1, Mk2B)
MA–1	150 Air HP, 115 lb/min 50 psia
MA–2	250 Air HP, 150 lb/min 75 psia
CARTRIDGE:	
MXU–4A	USAF

(25) FUEL—MILITARY

Fuel available through US Military Base supply, DESC Into–Plane Contracts and/or reciprocal agreement is listed first and is followed by (Mil). At commercial airports where Into–Plane contracts are in place, the name of the refueling agent is shown. Military fuel should be used first if it is available. When military fuel cannot be obtained but Into–Plane contract fuel is available, Government aircraft must refuel with the contract fuel and applicable refueling agent to avoid any breach in contract terms and conditions. Fuel not available through the above is shown preceded by NC (no contract). When fuel is obtained from NC sources, local purchase procedures must be followed. The US Military Aircraft Identaplates DD Form 1896 (Jet Fuel), DD Form 1897 (Avgas) and AF Form 1245 (Avgas) are used at military installations only. The US Government Aviation Into–Plane Reimbursement (AIR) Card (currently issued by AVCARD) is the instrument to be used to obtain fuel under a DESC Into–Plane Contract and for NC purchases if the refueling agent at the commercial airport accepts the AVCARD. A current list of contract fuel locations is available online at www.desc.dla.mil/Static/ProductsAndServices.asp; click on the Commercial Airports button.

See legend item 14 for fuel code and description.

(26) SUPPORTING FLUIDS AND SYSTEMS—MILITARY

CODE	
ADI	Anti–Detonation Injection Fluid—Reciprocating Engine Aircraft.
W	Water Thrust Augmentation—Jet Aircraft.
WAI	Water–Alcohol Injection Type, Thrust Augmentation—Jet Aircraft.
SP	Single Point Refueling.
PRESAIR	Air Compressors rated 3,000 PSI or more.
De–Ice	Anti–icing/De–icing/Defrosting Fluid (MIL–A–8243).

OXYGEN:

LPOX	Low pressure oxygen servicing.
HPOX	High pressure oxygen servicing.
LHOX	Low and high pressure oxygen servicing.
LOX	Liquid oxygen servicing.
OXRB	Oxygen replacement bottles. (Maintained primarily at Naval stations for use in acft where oxygen can be replenished only by replacement of cylinders.)
OX	Indicates oxygen servicing when type of servicing is unknown.

NOTE: Combinations of above items is used to indicate complete oxygen servicing available;

LHOXRB	Low and high pressure oxygen servicing and replacement bottles;
LPOXRB	Low pressure oxygen replacement bottles only, etc.

NOTE: Aircraft will be serviced with oxygen procured under military specifications only. Aircraft will not be serviced with medical oxygen.

NITROGEN:

LPNIT — Low pressure nitrogen servicing.
HPNIT — High pressure nitrogen servicing.
LHNIT — Low and high pressure nitrogen servicing.

(27) OIL—MILITARY

US AVIATION OILS (MIL SPECS):

CODE	GRADE, TYPE
O–113	1065, Reciprocating Engine Oil (MIL–L–6082)
O–117	1100, Reciprocating Engine Oil (MIL–L–6082)
O–117+	1100, O–117 plus cyclohexanone (MIL–L–6082)
O–123	1065, (Dispersant), Reciprocating Engine Oil (MIL–L–22851 Type III)
O–128	1100, (Dispersant), Reciprocating Engine Oil (MIL–L–22851 Type II)
O–132	1005, Jet Engine Oil (MIL–L–6081)
O–133	1010, Jet Engine Oil (MIL–L–6081)
O–147	None, MIL–L–6085A Lubricating Oil, Instrument, Synthetic
O–148	None, MIL–L–7808 (Synthetic Base) Turbine Engine Oil
O–149	None, Aircraft Turbine Engine Synthetic, 7.5c St
O–155	None, MIL–L–6086C, Aircraft, Medium Grade
O–156	None, MIL–L–23699 (Synthetic Base), Turboprop and Turboshaft Engines
JOAP/SOAP	Joint Oil Analysis Program. JOAP support is furnished during normal duty hours, other times on request. (JOAP and SOAP programs provide essentially the same service, JOAP is now the standard joint service supported program.)

(28) TRANSIENT ALERT (TRAN ALERT)—MILITARY

Tran Alert service is considered to include all services required for normal aircraft turn–around, e.g., servicing (fuel, oil, oxygen, etc.), debriefing to determine requirements for maintenance, minor maintenance, inspection and parking assistance of transient aircraft. Drag chute repack, specialized maintenance, or extensive repairs will be provided within the capabilities and priorities of the base. Delays can be anticipated after normal duty hours/holidays/weekends regardless of the hours of transient maintenance operation. Pilots should not expect aircraft to be serviced for TURN–AROUNDS during time periods when servicing or maintenance manpower is not available. In the case of airports not operated exclusively by US military, the servicing indicated by the remarks will not always be available for US military

aircraft. When transient alert services are not shown, facilities are unknown. NO PRIORITY BASIS—means that transient alert services will be provided only after all the requirements for mission/tactical assigned aircraft have been accomplished.

(29) AIRPORT REMARKS

The Attendance Schedule is the months, days and hours the airport is actually attended. Airport attendance does not mean watchman duties or telephone accessibility, but rather an attendant or operator on duty to provide at least minimum services (e.g., repairs, fuel, transportation).

Airport Remarks have been grouped in order of applicability. Airport remarks are limited to those items of information that are determined essential for operational use, i.e., conditions of a permanent or indefinite nature and conditions that will remain in effect for more than 30 days concerning aeronautical facilities, services, maintenance available, procedures or hazards, knowledge of which is essential for safe and efficient operation of aircraft. Information concerning permanent closing of a runway or taxiway will not be shown. A note ''See Special Notices'' shall be applied within this remarks section when a special notice applicable to the entry is contained in the Special Notices section of this publication.

Parachute Jumping indicates parachute jumping areas associated with the airport. See Parachute Jumping Area section of this publication for additional Information.

Landing Fee indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

Note: Unless otherwise stated, remarks including runway ends refer to the runway's approach end.

(30) MILITARY REMARKS

Military Remarks published at a joint Civil/Military facility are remarks that are applicable to the Military. At Military Facilities all remarks will be published under the heading Military Remarks. Remarks contained in this section may not be applicable to civil users. The first group of remarks is applicable to the primary operator of the airport. Remarks applicable to a tenant on the airport are shown preceded by the tenant organization, i.e., (A) (AF) (N) (ANG), etc. Military airports operate 24 hours unless otherwise specified. Airport operating hours are listed first (airport operating hours will only be listed if they are different than the airport attended hours or if the attended hours are unavailable) followed by pertinent remarks in order of applicability. Remarks will include information on restrictions, hazards, traffic pattern, noise abatement, customs/agriculture/immigration, and miscellaneous information applicable to the Military.

Type of restrictions:

CLOSED: When designated closed, the airport is restricted from use by all aircraft unless stated otherwise. Any closure applying to specific type of aircraft or operation will be so stated. USN/USMC/USAF airports are considered closed during non–operating hours. Closed airports may be utilized during an emergency provided there is a safe landing area.

OFFICIAL BUSINESS ONLY: The airfield is closed to all transient military aircraft for obtaining routine services such as fueling, passenger drop off or pickup, practice approaches, parking, etc. The airfield may be used by aircrews and aircraft if official government business (including civilian) must be conducted on or near the airfield and prior permission is received from the airfield manager.

AF OFFICIAL BUSINESS ONLY OR NAVY OFFICIAL BUSINESS ONLY: Indicates that the restriction applies only to service indicated.

PRIOR PERMISSION REQUIRED (PPR): Airport is closed to transient aircraft unless approval for operation is obtained from the appropriate commander through Chief, Airfield Management or Airfield Operations Officer. Official Business or PPR does not preclude the use of US Military airports as an alternate for IFR flights. If a non–US military airport is used as a weather alternate and requires a PPR, the PPR must be requested and confirmed before the flight departs. The purpose of PPR is to control volume and flow of traffic rather than to prohibit it. Prior permission is required for all aircraft requiring transient alert service outside the published transient alert duty hours. All aircraft carrying hazardous materials must obtain prior permission as outlined in AFJI 11–204, AR 95–27, OPNAVINST 3710.7.

Note: OFFICIAL BUSINESS ONLY AND PPR restrictions are not applicable to Special Air Mission (SAM) or Special Air Resource (SPAR) aircraft providing person or persons on aboard are designated Code 6 or higher as explained in AFJMAN 11–213, AR 95–11, OPNAVINST 3722–8J. Official Business Only or PPR do not preclude the use of the airport as an alternate for IFR flights.

(31) WEATHER DATA SOURCES

Weather data sources will be listed alphabetically followed by their assigned frequencies and/or telephone number and hours of operation.

ASOS—Automated Surface Observing System. Reports the same as an AWOS–3 plus precipitation identification and intensity, and freezing rain occurrence (future enhancement).

AWOS—Automated Weather Observing System

AWOS–A—reports altimeter setting (all other information is advisory only).

AWOS–1—reports altimeter setting, wind data and usually temperature, dewpoint and density altitude.

AWOS–2—reports the same as AWOS–1 plus visibility.

AWOS–3—reports the same as AWOS–1 plus visibility and cloud/ceiling data.

See AIM, Basic Flight Information and ATC Procedures for detailed description of AWOS.

HIWAS—See RADIO AIDS TO NAVIGATION
LAWRS—Limited Aviation Weather Reporting Station where observers report cloud height, weather, obstructions to vision, temperature and dewpoint (in most cases), surface wind, altimeter and pertinent remarks.
LLWAS—indicates a Low Level Wind Shear Alert System consisting of a center field and several field perimeter anemometers.
SAWRS—identifies airports that have a Supplemental Aviation Weather Reporting Station available to pilots for current weather information.
SWSL—Supplemental Weather Service Location providing current local weather information via radio and telephone.
TDWR—indicates airports that have Terminal Doppler Weather Radar.
WSP—indicates airports that have Weather System Processor.

When the automated weather source is broadcast over an associated airport NAVAID frequency (see NAVAID line), it shall be indicated by a bold ASOS, AWOS, or HIWAS followed by the frequency, identifier and phone number, if available.

(32) COMMUNICATIONS

Airport terminal control facilities and radio communications associated with the airport shall be shown. When the call sign is not the same as the airport name the call sign will be shown. Frequencies shall normally be shown in descending order with the primary frequency listed first. Frequencies will be listed, together with sectorization indicated by outbound radials, and hours of operation. Communications will be listed in sequence as follows:

Single Frequency Approach (SFA), Common Traffic Advisory Frequency (CTAF), Automatic Terminal Information Service (ATIS) and Aeronautical Advisory Stations (UNICOM) or (AUNICOM) along with their frequency is shown, where available, on the line following the heading ''COMMUNICATIONS.'' When the CTAF and UNICOM frequencies are the same, the frequency will be shown as CTAF/UNICOM 122.8.

The FSS telephone nationwide is toll free 1–800–WX–BRIEF (1–800–992–7433). When the FSS is located on the field it will be indicated as ''on arpt''. Frequencies available at the FSS will follow in descending order. Remote Communications Outlet (RCO) providing service to the airport followed by the frequency and FSS RADIO name will be shown when available.

FSS's provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service (AAS) is provided on the CTAF by FSS's for select non-tower airports or airports where the tower is not in operation.

(See AIM, Para 4–1–9 Traffic Advisory Practices at Airports Without Operating Control Towers or AC 90–42C.)

Aviation weather briefing service is provided by FSS specialists. Flight and weather briefing services are also available by calling the telephone numbers listed.

Remote Communications Outlet (RCO)—An unmanned air/ground communications facility that is remotely controlled and provides UHF or VHF communications capability to extend the service range of an FSS.

Civil Communications Frequencies-Civil communications frequencies used in the FSS air/ground system are operated on 122.0, 122.2, 123.6; emergency 121.5; plus receive-only on 122.1.

a. 122.0 is assigned as the Enroute Flight Advisory Service frequency at selected FSS RADIO outlets.
b. 122.2 is assigned as a common enroute frequency.
c. 123.6 is assigned as the airport advisory frequency at select non-tower locations. At airports with a tower, FSS may provide airport advisories on the tower frequency when tower is closed.
d. 122.1 is the primary receive-only frequency at VOR's.
e. Some FSS's are assigned 50 kHz frequencies in the 122–126 MHz band (eg. 122.45). Pilots using the FSS A/G system should refer to this directory or appropriate charts to determine frequencies available at the FSS or remoted facility through which they wish to communicate.

Emergency frequency 121.5 and 243.0 are available at all Flight Service Stations, most Towers, Approach Control and RADAR facilities.

Frequencies published followed by the letter ''T'' or ''R'', indicate that the facility will only transmit or receive respectively on that frequency. All radio aids to navigation (NAVAID) frequencies are transmit only.

TERMINAL SERVICES

SFA—Single Frequency Approach.
CTAF—A program designed to get all vehicles and aircraft at airports without an operating control tower on a common frequency.
ATIS—A continuous broadcast of recorded non-control information in selected terminal areas.
D–ATIS—Digital ATIS provides ATIS information in text form outside the standard reception range of conventional ATIS via landline & data link communications and voice message within range of existing transmitters.
AUNICOM—Automated UNICOM is a computerized, command response system that provides automated weather, radio check capability and airport advisory information selected from an automated menu by microphone clicks.
UNICOM—A non-government air/ground radio communications facility which may provide airport information.
PTD—Pilot to Dispatcher.
APP CON—Approach Control. The symbol Ⓡ indicates radar approach control.
TOWER—Control tower.
GCA—Ground Control Approach System.
GND CON—Ground Control.
GCO—Ground Communication Outlet—An unstaffed, remotely controlled, ground/ground communications facility. Pilots at uncontrolled airports may contact ATC and FSS via VHF to a telephone connection to obtain an instrument clearance or close a VFR or IFR flight plan. They may also get an updated weather briefing prior to takeoff. Pilots will use four ''key clicks'' on the

VHF radio to contact the appropriate ATC facility or six ''key clicks'' to contact the FSS. The GCO system is intended to be used only on the ground.
DEP CON—Departure Control. The symbol Ⓡ indicates radar departure control.
CLNC DEL—Clearance Delivery.
PRE TAXI CLNC—Pre taxi clearance.

VFR ADVSY SVC—VFR Advisory Service. Service provided by Non-Radar Approach Control.
Advisory Service for VFR aircraft (upon a workload basis) ctc APP CON.
COMD POST—Command Post followed by the operator call sign in parenthesis.
PMSV—Pilot–to–Metro Service call sign, frequency and hours of operation, when full service is other than continuous. PMSV installations at which weather observation service is available shall be indicated, following the frequency and/or hours of operation as ''Wx obsn svc 1900–0000Z‡'' or ''other times'' may be used when no specific time is given. PMSV facilities manned by forecasters are considered ''Full Service''. PMSV facilities manned by weather observers are listed as ''Limited Service''.
OPS—Operations followed by the operator call sign in parenthesis.
CON
RANGE
FLT FLW—Flight Following
MEDIVAC
NOTE: Communication frequencies followed by the letter ''X'' indicate frequency available on request.

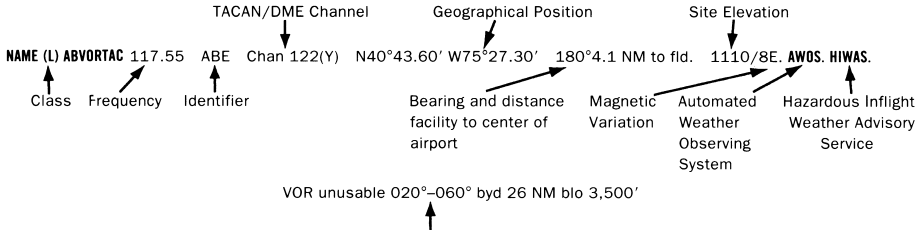
㉝ AIRSPACE

Information concerning Class B, C, and part–time D and E surface area airspace shall be published with effective times. Class D and E surface area airspace that is continuous as established by Rulemaking Docket will not be shown.
CLASS B—Radar Sequencing and Separation Service for all aircraft in CLASS B airspace.
CLASS C—Separation between IFR and VFR aircraft and sequencing of VFR arrivals to the primary airport.
TRSA—Radar Sequencing and Separation Service for participating VFR Aircraft within a Terminal Radar Service Area.
Class C, D, and E airspace described in this publication is that airspace usually consisting of a 5 NM radius core surface area that begins at the surface and extends upward to an altitude above the airport elevation (charted in MSL for Class C and Class D). Class E surface airspace normally extends from the surface up to but not including the overlying controlled airspace.
When part–time Class C or Class D airspace defaults to Class E, the core surface area becomes Class E. This will be formatted as:
AIRSPACE: CLASS C svc ''times'' ctc **APP CON** other times CLASS E:
or
AIRSPACE: CLASS D svc ''times'' other times CLASS E.
When a part–time Class C, Class D or Class E surface area defaults to Class G, the core surface area becomes Class G up to, but not including, the overlying controlled airspace. Normally, the overlying controlled airspace is Class E airspace beginning at either 700′ or 1200′ AGL. This will be formatted as:
AIRSPACE: CLASS C svc ''times'' ctc **APP CON** other times CLASS G, with CLASS E 700′ (or 1200′) AGL & abv:
or
AIRSPACE: CLASS D svc ''times'' other times CLASS G with CLASS E 700′ (or 1200′) AGL & abv:
or
AIRSPACE: CLASS E svc ''times'' other times CLASS G with CLASS E 700′ (or 1200′) AGL & abv.
NOTE: AIRSPACE SVC "TIMES" INCLUDE ALL ASSOCIATED ARRIVAL EXTENSIONS. Surface area arrival extensions for instrument approach procedures become part of the primary core surface area. These extensions may be either Class D or Class E airspace and are effective concurrent with the times of the primary core surface area. For example, when a part–time Class C, Class D or Class E surface area defaults to Class G, the associated arrival extensions will default to Class G at the same time. When a part–time Class C or Class D surface area defaults to Class E, the arrival extensions will remain in effect as Class E airspace.
NOTE: CLASS E AIRSPACE EXTENDING UPWARD FROM 700 FEET OR MORE ABOVE THE SURFACE, DESIGNATED IN CONJUNCTION WITH AN AIRPORT WITH AN APPROVED INSTRUMENT PROCEDURE.
Class E 700′ AGL (shown as magenta vignette on sectional charts) and 1200′ AGL (blue vignette) areas are designated when necessary to provide controlled airspace for transitioning to/from the terminal and enroute environments. Unless otherwise specified, these 700′/1200′ AGL Class E airspace areas remain in effect continuously, regardless of airport operating hours or surface area status. These transition areas should not be confused with surface areas or arrival extensions.
(See Chapter 3, AIRSPACE, in the Aeronautical Information Manual for further details)

㉞ RADIO AIDS TO NAVIGATION

The Airport/Facility Directory lists, by facility name, all Radio Aids to Navigation that appear on National Aeronautical Navigation Services Visual or IFR Aeronautical Charts and those upon which the FAA has approved an Instrument Approach Procedure, with exception of selected TACANs. Military TACAN information will be published for Military facilities contained in this publication. All VOR, VORTAC, TACAN, ILS and MLS equipment in the National Airspace System has an automatic monitoring and shutdown feature in the event of malfunction. Unmonitored, as used in this publication, for any navigational aid, means that monitoring personnel cannot observe the malfunction or shutdown signal. The NAVAID NOTAM file identifier will be shown as ''NOTAM FILE IAD'' and will be listed on the Radio Aids to Navigation line. When two or more NAVAIDS are listed and the NOTAM file identifier is different from that shown on the Radio Aids to Navigation line, it will be shown with the NAVAID listing. NOTAM file identifiers for ILSs and its components (e.g., NDB (LOM) are the same as the associated airports and are not repeated. Automated Surface Observing System (ASOS), Automated Weather Observing System (AWOS), and Hazardous Inflight Weather Advisory Service (HIWAS) will be shown when this service is broadcast over selected NAVAIDs.

NAVAID information is tabulated as indicated in the following sample:



Restriction within the normal altitude/range of the navigational aid (See primary alphabetical listing for restrictions on VORTAC and VOR/DME).

Note: Those DME channel numbers with a (Y) suffix require TACAN to be placed in the ''Y'' mode to receive distance information.

HIWAS—Hazardous Inflight Weather Advisory Service is a continuous broadcast of inflight weather advisories including summarized SIGMETs, convective SIGMETs, AIRMETs and urgent PIREPs. HIWAS is presently broadcast over selected VOR's throughout the U.S.

ASR/PAR—Indicates that Surveillance (ASR) or Precision (PAR) radar instrument approach minimums are published in the U.S. Terminal Procedures. Only part-time hours of operation will be shown.

RADIO CLASS DESIGNATIONS

VOR/DME/TACAN Standard Service Volume (SSV) Classifications

SSV Class	Altitudes	Distance (NM)
(T) Terminal	1000′ to 12,000′	25
(L) Low Altitude	1000′ to 18,000′	40
(H) High Altitude	1000′ to 14,500′	40
	14,500′ to 18,000′	100
	18,000′ to 45,000′	130
	45,000′ to 60,000′	100

NOTE: Additionally, (H) facilities provide (L) and (T) service volume and (L) facilities provide (T) service. Altitudes are with respect to the station's site elevation. Coverage is not available in a cone of airspace directly above the facility.

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The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB	Automatic Weather Broadcast.
DF	Direction Finding Service.
DME	UHF standard (TACAN compatible) distance measuring equipment.
DME(Y)	UHF standard (TACAN compatible) distance measuring equipment that require TACAN to be placed in the ''Y'' mode to receive DME.
GS	Glide slope.
H	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts (50 NM at all altitudes).
HH	Non-directional radio beacon (homing), power 2,000 watts or more (75 NM at all altitudes).
H-SAB	Non-directional radio beacons providing automatic transcribed weather service.
ILS	Instrument Landing System (voice, where available, on localizer channel).
IM	Inner marker.
ISMLS	Interim Standard Microwave Landing System.
LDA	Localizer Directional Aid.
LMM	Compass locator station when installed at middle marker site (15 NM at all altitudes).
LOM	Compass locator station when installed at outer marker site (15 NM at all altitudes).
MH	Non-directional radio beacon (homing) power less than 50 watts (25 NM at all altitudes).
MLS	Microwave Landing System.
MM	Middle marker.
OM	Outer marker.
S	Simultaneous range homing signal and/or voice.
SABH	Non-directional radio beacon not authorized for IFR or ATC. Provides automatic weather broadcasts.
SDF	Simplified Direction Facility.
TACAN	UHF navigational facility-omnidirectional course and distance information.
VOR	VHF navigational facility-omnidirectional course only.
VOR/DME	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC	Collocated VOR and TACAN navigational facilities.
W	Without voice on radio facility frequency.
Z	VHF station location marker at a LF radio facility.

ILS FACILITY PEFORMANCE CLASSIFICATION CODES

Codes define the ability of an ILS to support autoland operations. The two portions of the code represent Official Category and farthest point along a Category I, II, or III approach that the Localizer meets Category III structure tolerances.

Official Category: I, II, or III; the lowest minima on published or unpublished procedures supported by the ILS.

Farthest point of satisfactory Category III Localizer performance for Category I, II, or III approaches: A – 4 NM prior to runway threshold, B – 3500 ft prior to runway threshold, C – glide angle dependent but generally 750–1000 ft prior to threshold, T – runway threshold, D – 3000 ft after runway threshold, and E – 2000 ft prior to stop end of runway.

ILS information is tabulated as indicated in the following sample:

ILS/DME 108.5 I–ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.

ILS Facility Performance Classification Code

FREQUENCY PAIRING PLAN AND MLS CHANNELING

MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL
500	108.10	18X	568	109.45	31Y	636	114.15	88Y
502	108.30	20X	570	109.55	32Y	638	114.25	89Y
504	108.50	22X	572	109.65	33Y	640	114.35	90Y
506	108.70	24X	574	109.75	34Y	642	114.45	91Y
508	108.90	26X	576	109.85	35Y	644	114.55	92Y
510	109.10	28X	578	109.95	36Y	646	114.65	93Y
512	109.30	30X	580	110.05	37Y	648	114.75	94Y
514	109.50	32X	582	110.15	38Y	650	114.85	95Y
516	109.70	34X	584	110.25	39Y	652	114.95	96Y
518	109.90	36X	586	110.35	40Y	654	115.05	97Y
520	110.10	38X	588	110.45	41Y	656	115.15	98Y
522	110.30	40X	590	110.55	42Y	658	115.25	99Y
524	110.50	42X	592	110.65	43Y	660	115.35	100Y
526	110.70	44X	594	110.75	44Y	662	115.45	101Y
528	110.90	46X	596	110.85	45Y	664	115.55	102Y
530	111.10	48X	598	110.95	46Y	666	115.65	103Y
532	111.30	50X	600	111.05	47Y	668	115.75	104Y
534	111.50	52X	602	111.15	48Y	670	115.85	105Y
536	111.70	54X	604	111.25	49Y	672	115.95	106Y
538	111.90	56X	606	111.35	50Y	674	116.05	107Y
540	108.05	17Y	608	111.45	51Y	676	116.15	108Y
542	108.15	18Y	610	111.55	52Y	678	116.25	109Y
544	108.25	19Y	612	111.65	53Y	680	116.35	110Y
546	108.35	20Y	614	111.75	54Y	682	116.45	111Y
548	108.45	21Y	616	111.85	55Y	684	116.55	112Y
550	108.55	22Y	618	111.95	56Y	686	116.65	113Y
552	108.65	23Y	620	113.35	80Y	688	116.75	114Y
554	108.75	24Y	622	113.45	81Y	690	116.85	115Y
556	108.85	25Y	624	113.55	82Y	692	116.95	116Y
558	108.95	26Y	626	113.65	83Y	694	117.05	117Y
560	109.05	27Y	628	113.75	84Y	696	117.15	118Y
562	109.15	28Y	630	113.85	85Y	698	117.25	119Y
564	109.25	29Y	632	113.95	86Y			
566	109.35	30Y	634	114.05	87Y			

FREQUENCY PAIRING PLAN AND MLS CHANNELING

The following is a list of paired VOR/ILS VHF frequencies with TACAN channels and MLS channels.

TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
2X	134.5	-	19Y	108.25	544	25X	108.80	-
2Y	134.55	-	20X	108.30	502	25Y	108.85	556
11X	135.4	-	20Y	108.35	546	26X	108.90	508
11Y	135.45	-	21X	108.40	-	26Y	108.95	558
12X	135.5	-	21Y	108.45	548	27X	109.00	-
12Y	135.55	-	22X	108.50	504	27Y	109.05	560
17X	108.00	-	22Y	108.55	550	28X	109.10	510
17Y	108.05	540	23X	108.60	-	28Y	109.15	562
18X	108.10	500	23Y	108.65	552	29X	109.20	-
18Y	108.15	542	24X	108.70	506	29Y	109.25	564
19X	108.20	-	24Y	108.75	554	30X	109.30	512

TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
30Y	109.35	566	63X	133.60	-	95Y	114.85	650
31X	109.40	-	63Y	133.65	-	96X	114.90	-
31Y	109.45	568	64X	133.70	-	96Y	114.95	652
32X	109.50	514	64Y	133.75	-	97X	115.00	-
32Y	109.55	570	65X	133.80	-	97Y	115.05	654
33X	109.60	-	65Y	133.85	-	98X	115.10	-
33Y	109.65	572	66X	133.90	-	98Y	115.15	656
34X	109.70	516	66Y	133.95	-	99X	115.20	-
34Y	109.75	574	67X	134.00	-	99Y	115.25	658
35X	109.80	-	67Y	134.05	-	100X	115.30	-
35Y	109.85	576	68X	134.10	-	100Y	115.35	660
36X	109.90	518	68Y	134.15	-	101X	115.40	-
36Y	109.95	578	69X	134.20	-	101Y	115.45	662
37X	110.00	-	69Y	134.25	-	102X	115.50	-
37Y	110.05	580	70X	112.30	-	102Y	115.55	664
38X	110.10	520	70Y	112.35	-	103X	115.60	-
38Y	110.15	582	71X	112.40	-	103Y	115.65	666
39X	110.20	-	71Y	112.45	-	104X	115.70	-
39Y	110.25	584	72X	112.50	-	104Y	115.75	668
40X	110.30	522	72Y	112.55	-	105X	115.80	-
40Y	110.35	586	73X	112.60	-	105Y	115.85	670
41X	110.40	-	73Y	112.65	-	106X	115.90	-
41Y	110.45	588	74X	112.70	-	106Y	115.95	672
42X	110.50	524	74Y	112.75	-	107X	116.00	-
42Y	110.55	590	75X	112.80	-	107Y	116.05	674
43X	110.60	-	75Y	112.85	-	108X	116.10	-
43Y	110.65	592	76X	112.90	-	108Y	116.15	676
44X	110.70	526	76Y	112.95	-	109X	116.20	-
44Y	110.75	594	77X	113.00	-	109Y	116.25	678
45X	110.80	-	77Y	113.05	-	110X	116.30	-
45Y	110.85	596	78X	113.10	-	110Y	116.35	680
46X	110.90	528	78Y	113.15	-	111X	116.40	-
46Y	110.95	598	79X	113.20	-	111Y	116.45	682
47X	111.00	-	79Y	113.25	-	112X	116.50	-
47Y	111.05	600	80X	113.30	-	112Y	116.55	684
48X	111.10	530	80Y	113.35	620	113X	116.60	-
48Y	111.15	602	81X	113.40	-	113Y	116.65	686
49X	111.20	-	81Y	113.45	622	114X	116.70	-
49Y	111.25	604	82X	113.50	-	114Y	116.75	688
50X	111.30	532	82Y	113.55	624	115X	116.80	-
50Y	111.35	606	83X	113.60	-	115Y	116.85	690
51X	111.40	-	83Y	113.65	626	116X	116.90	-
51Y	111.45	608	84X	113.70	-	116Y	116.95	692
52X	111.50	534	84Y	113.75	628	117X	117.00	-
52Y	111.55	610	85X	113.80	-	117Y	117.05	694
53X	111.60	-	85Y	113.85	630	118X	117.10	-
53Y	111.65	612	86X	113.90	-	118Y	117.15	696
54X	111.70	536	86Y	113.95	632	119X	117.20	-
54Y	111.75	614	87X	114.00	-	119Y	117.25	698
55X	111.80	-	87Y	114.05	634	120X	117.30	-
55Y	111.85	616	88X	114.10	-	120Y	117.35	-
56X	111.90	538	88Y	114.15	636	121X	117.40	-
56Y	111.95	618	89X	114.20	-	121Y	117.45	-
57X	112.00	-	89Y	114.25	638	122X	117.50	-
57Y	112.05	-	90X	114.30	-	122Y	117.55	-
58X	112.10	-	90Y	114.35	640	123X	117.60	-
58Y	112.15	-	91X	114.40	-	123Y	117.65	-
59X	112.20	-	91Y	114.45	642	124X	117.70	-
59Y	112.25	-	92X	114.50	-	124Y	117.75	-
60X	133.30	-	92Y	114.55	644	125X	117.80	-
60Y	133.35	-	93X	114.60	-	125Y	117.85	-
61X	133.40	-	93Y	114.65	646	126X	117.90	-
61Y	133.45	-	94X	114.70	-	126Y	117.95	-
62X	133.50	-	94Y	114.75	648			
62Y	133.55	-	95X	114.80	-			

(35) COMM/NAV/WEATHER REMARKS:

These remarks consist of pertinent information affecting the current status of communications, NAVAIDs and weather.

CHARLOTTE AMALIE ST THOMAS

CYRIL E KING (STT) (TIST) 2 W UTC−4 N18°20.24′ W64°58.40′ **PUERTO RICO–VIRGIN ISLAND TAC**
23 B S2 **FUEL** 100LL, JET A LRA Class I, ARFF Index C NOTAM FILE TIST **H–2G, L–5C, 6G, A–3F**
RWY 10–28: H7000X150 (ASPH–GRVD) S–100, D–155, DT–195 MIRL **IAP, AD**
RWY 10: REIL. PAPI(P4L)—GA 3.0° TCH 74′. Rgt tfc. **RWY 28:** Thld dsplcd 2300′. Pole.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 10: TORA–7000 TODA–7000 ASDA–7000 LDA–7000
RWY 28: TORA–7000 TODA–7000 ASDA–6000 LDA–3700
AIRPORT REMARKS: Attended 1100–0300Z. Fuel avbl 1100–2300Z, other times PPR call 340–777–9177, 340–772–8093, 340–715–3821. Pilots may encounter false illusory indications during ngt visual apchs to Rwy 10 when using visual cues for vertical guidance. Recommend use of the ILS glide slope and frequent cross reference with the acft altimeter to maintain proper apch profile. Lgts on hill 4 NM SE of arpt may be mistaken for Rwy 10–28 when making a visual apch from the S. Rwy 10 dep maintain rwy heading until reaching dep end of rwy before turning on course or assigned heading unless otherwise authorized by twr. Noise sensitive area: Avoid overflights of water island located 2 miles SE of arpt. Acft that back taxi for departure Rwy 28 shall make their 180° turns counterclockwise. CLOSED to unscheduled air carrier ops with more than 30 passenger seats except 24 hrs PPR call arpt manager 340–774–5100. Pilots ctc ground control prior to push back. ARFF unavbl 0300–1030Z. Arpt lgts opr dusk–0300Z. MIRL Rwy 10–28 opr dusk–0300Z. After 0300Z ACTIVATE MIRL Rwy 10–28—CTAF. ACTIVATE PAPI Rwy 10—CTAF. Ldg fee. Flight Notification Service (ADCUS) avbl.
WEATHER DATA SOURCES: ASOS (340) 776–7116. LAWRS.
COMMUNICATIONS: CTAF 118.8 **ATIS** 124.0 **UNICOM** 122.95
Ⓡ **SAN JUAN CENTER APP/DEP CON** 128.65
ST THOMAS TOWER 118.1 (North of Island) 118.8 (1100–0230Z, twr closes 1 hour earlier during U.S. dalgt savings time) **GND CON** 121.9
AIRSPACE: CLASS C svc 1100–0230Z, twr closes 1 hr earlier during U.S. dalgt savings time, ctc San Juan Center App/Dep Con, other times CLASS G.
RADIO AIDS TO NAVIGATION: NOTAM FILE TIST.
ST THOMAS (L) VOR/DME 108.6 STT Chan 23 N18°21.35′ W65°01.47′ 122° 3.1 NM to fld. 679/10W.
ILS/DME 110.1 I–TMN Chan 38 Rwy 10. Class IB. Localizer unusable byd 20° left of centerline. DME unusable byd 15° left of centerline. (ILS unmonitored when twr closed).
COMM/NAV/WEATHER REMARKS: Tower communications restricted blo 4000′ from 270°–090°.

CHRISTIANSTED ST CROIX

HENRY E ROHLSEN (STX) (TISX) 6 SW UTC−4 N17°42.09′ W64°48.10′ **PUERTO RICO–VIRGIN ISLAND TAC**
74 B S4 **FUEL** 100LL, JET A1 + LRA Class I, ARFF Index C NOTAM FILE TISX **H–2G, L–5C, 6G, A–3F**
RWY 10–28: H10004X150 (ASPH–GRVD) S–100, D–175, DT–300 HIRL **IAP, AD**
RWY 10: MALSR. PAPI(P4L)—GA 3.0° TCH 73′. Rgt tfc. 0.6% down.
RWY 28: REIL. PAPI(P4L)—GA 3.0° TCH 80′. Bldg. 0.4% up.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 10: TORA–10004 TODA–10004 ASDA–9000 LDA–9000
RWY 28: TORA–10004 TODA–10004 ASDA–10004 LDA–9000
AIRPORT REMARKS: Attended 0900–0300Z. Fuel avbl 1100–2300Z, other times 1 hr PPR call 340–778–9177 or 340–778–0090. CLOSED to unscheduled air carrier ops with more than 30 passenger seats except 24 hrs PPR call arpt manager 340–778–1012 or fax 340–778–1033. ARFF svc unavbl 0300–0900Z. Apch to Rwy 28 sometimes obscured by smoke from landfill located E of arpt. Birds and wildlife on and invof arpt. Rwy 10 and Rwy 28 100 ft X 200 ft blast pad. ACTIVATE HIRL Rwy 10–28 and MALSR Rwy 10 0300–1100Z—CTAF. Ldg fee. Flight Notification Service (ADCUS) avbl.
WEATHER DATA SOURCES: ASOS (340) 778–8122. LAWRS.
COMMUNICATIONS: CTAF 118.6 **ATIS** 135.65 **UNICOM** 123.0
Ⓡ **SAN JUAN CENTER APP/DEP CON** 128.65
ST CROIX TOWER 118.6 (1100–0200Z) **GND CON** 121.7
AIRSPACE: CLASS D svc 1100–0200Z other times CLASS G.
RADIO AIDS TO NAVIGATION: NOTAM FILE TISX.
ST CROIX (L) VOR/DME 108.2 COY Chan 19 N17°44.07′ W64°42.04′ 261° 6.1 NM to fld. 850/10W.
PESTE NDB (LOM) 241 ST N17°41.52′ W64°53.08′ 093° 4.8 NM to fld.
ILS 109.5 I–STX RWY 10. LOM PESTE NDB. Localizer unusable byd 20° left of centerline. (ILS unmonitored when twr closed)
COMM/NAV/WEATHER REMARKS: San Juan Center provides IFR clearances on freq. 128.65 when ST CROIX twr clsd.

CYRIL E KING (See CHARLOTTE AMALIE ST THOMAS)

PESTE N17°41.52′ W64°53.08′ NOTAM FILE TISX. **PUERTO RICO–VIRGIN ISLAND TAC**
NDB (LOM) 241 ST 093° 5 NM to Henry E Rohlsen.

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2010 U.S. & CANADIAN MILITARY AERIAL AIRCRAFT/PARACHUTE DEMONSTRATIONS

During CY 2010, the U.S. and Canadian Military Aerial Demonstration Teams (Thunderbirds, Blue Angels, Snowbirds, and Golden Knights) will be performing on the dates and locations listed below.

Pilots should expect Temporary Flight Restrictions (TFR) in accordance with 14 CFR Section 91.145, Management of aircraft operations in the vicinity of aerial demonstrations and major sporting events. The dimensions and effective times of the TFRs may vary based upon the specific aerial demonstration event and will be issued via the U.S. NOTAM system. Pilots are strongly encouraged to check FDC NOTAMs to verify they have the most current information regarding these airspace restrictions.

The currently scheduled 2010 aerial demonstration locations, subject to change without notice, are:

DATE:		USAF Thunderbirds	USN Blue Angels	USA Golden Knights	Canadian Snowbirds
June	5-6	Ocean City, MD	Eau Claire, WI	Eau Claire, WI	
	5-6			Florence, SC	
	12-13		Milwaukee, WI	Milwaukee, WI	
	19-20	Tinker AFB, OK	Cape Girardeau, MO		
	19-21			Cape Girardeau, MO	
	23			Ft McNair, VA	
	26-27	North Kingstown, RI	St. Cloud, MN		
	26-27			Fairmont, NC	
July	3			Madison, WI	
	3			Dubuque, IA	
	3-4		Traverse City, MI		
	10		Pensacola Beach, FL		
	10-11	Gary, IN		Gary, IN	
	17-18	Duluth, MN	Dayton, OH		
	24-25	Fairchild AFB, WA	Idaho Falls, ID		
	28	Cheyenne, WY			
	29			Goshen, IN	
	29			Ft AP Hill, VA	
	31	Rockford, IL	Anchorage, AK	Rockford, IL	Elmendorf AFB, AK
August	1	Rockford, IL	Anchorage, AK	Rockford, IL	Elmendorf AFB, AK
	7-8	Point Mugu NAS, CA	Seattle, WA	New Castle, PA	
	14-15		Chicago, IL	Chicago, IL	
	21-22	Westfield, MA		Westfield, MA	
	25			Atlantic City, NJ	
	26			Ft Monroe, VA	
	28-29	Coney Island (Brooklyn), NY	Portsmouth, NH	Coney Island (Brooklyn), NY	
	28-29			Portsmouth, NH	
September	4-5	Martinsburg, WV		Cleveland, OH	
	4-5			Martinsburg, WV	
	4-6		Cleveland, OH		
	11-12	Corapolis (Pittsburgh), PA	Scott AFB, IL	Corapolis (Pittsburgh), PA	
	11-12			Scott AFB, IL	
	17			Southern Pines, NC	
	18-19	Whiteman AFB, MO	NAS Oceana, VA	Whiteman AFB, MO	Reno, NV
	25-26	McConnell AFB, KS	MCAS Kaneohe Bay, HI		Chico, CA

DATE:		USAF Thunderbirds	USN Blue Angels	USA Golden Knights	Canadian Snowbirds
October	1-3		MCAS Miramar, CA		MCAS Miramar, CA
	2-3	Salinas, CA		MCAS Miramar, CA	
	2-3			Jackson, MS	
	9-10	Little Rock AFB, AR	San Francisco, CA	Little Rock, AFB, AR	Daytona Beach, FL
	16-17	El Paso, IX	Dobbins AFB, GA	El Paso, TX	Atlanta, GA
	23-24	Houston, TX	NAS Jacksonville, FL	Washington, DC	
	30-31	Cocoa Beach, FL	Ft Worth Alliance, TX	Ft Worth Alliance, TX	
November	6-7	Lackland AFB, TX	Homestead ARB, FL	Lackland AFB, TX	
	6-7			Homestead ARB, FL	
	11-14			Ft Bragg, NC	
	12-13		NAS Pensacola, FL		
	13-14	Nellis AFB, NV			

Note: Dates and locations are scheduled ''show dates'' only and do not reflect arrival or practice date TFR periods that may precede the specific aerial demonstration events listed above. Again, pilots are strongly encouraged to check FDC NOTAMs to verify they have the most current information regarding any airspace restrictions.

NOISE ABATEMENT PROCEDURES
COVINGTON, KY, CINCINNATI/NORTHERN KENTUCKY INTL AIRPORT (CVG)

Successive or simultaneous departures from Runways 18L and 18R are authorized, with course divergence beginning no further than 2 miles from the departure end of parallel runways, due to noise abatement restrictions.

AEROBATIC PRACTICE AREA
Jack Edwards Airport (JKA)
Gulf Shores, AL

Aerobatic flight activity will be conducted within a 2 NM radius of airport. Contact UNICOM for traffic and Anniston AFSS for specific times.

Fayette County (FYE), Somerville, Tennessee

Aerobatic training and practice is conducted in a 3500′ symmetrical box located 500 feet west of Rwy 01–19 from the sfc to 4500 MSL. If surface winds favor Rwy 01, right traffic for that rwy is in effect when area is active.

Pilots should use caution within this area. For further information contact Jackson AFSS on 1–901–423–1289.

CONTROLLED FIRING AREA
Milan, Tennessee

Controlled Firing Area 5 NM radius 2500′ & blo of MKL 030/018, eff. Mon–Fri 1200–2300Z‡, Sat 1530–2230Z‡ Sun 1230–1700Z‡.

Helicopter Activity
Mosby Army Heliport, Dahlonega, GA Area

Occasional military helicopter activity within 15NM radius of Mosby AHP, (34°37′N/84°06′W) SFC to 3700 MSL. Activity includes: flight formations, personnel transport operations, cargo para–drop operations (below 500 AGL), medical evacuation and night vision device training. CTAF 227.2, 139.3, ‘‘Mountain Ranger 08’’ FM 34.10. Staff Duty Officer, Camp Frank D. Merrill, (706) 864–3367.

NIGHT VISION LIGHTS OUT OPERATIONS
North Carolina, South Carolina

Military helicopter activity will be conducted for Night Vision Lights Out Training in North Carolina and South Carolina. Position lights will be extinguished or greatly reduced in intensity. The training is conducted in areas of low air traffic and not within four (4) miles of a public use airport. Training is IAW exemption to Far Part 91.

Boundaries: Beginning at Lat 35°41′N, Lon 78°30′W; to Lat 34°00′N, Lon 78°30′W; to Lat 34°00′N, Lon 80°00′W; to Lat 36°00′N, Lon 80°30′W; to point of beginning.

Times of use: Sunset to sunrise, daily.

Helicopter Activity
Camp Blanding, Starke, Florida Area

Heavy military helicopter activity within 9 NM radius Blanding AAF, (29°57′7.84″N; 81°58′47.32″W). Surface to 1,500 feet. Activity includes: flight formations, personnel transport operations, sling loads, MED VAC, and night vision goggle training. Mon–Sat 1300–0500Z‡, 1300–2000Z‡ Sun. Blanding Twr 123.0 by NOTAM, other times Range Control 123.0. (904) 533–3113/3352.

Cuban Flight Advisory
(UNTIL FURTHER NOTICE)

The Federal Aviation Administration has been informed that an official Cuban government publication has issued a warning that Cuban Armed Forces will shoot down any aircraft that penetrates Cuban Airspace illegally and refuses to obey an order to land for inspection.

All pilots should take note: use extreme caution in the area of Cuban Airspace; adhere strictly to Cuban requirements for overflight of their territory.

LASER LIGHT DEMONSTRATIONS
Lake Buena Vista, Florida

A laser light demonstration will be conducted at Disney MGM Studios Theme Park, Lake Buena Vista, Florida (ORL 226 radial, 16.2 NM, LAT 28°21′42″N, LON 81°33′29″W), from 6:00 PM until 4:00 AM, until further advised. The beam may be injurious to eyes if viewed within 3,000 feet vertically and/or 12,000 feet laterally of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

Lake Buena Vista, Florida

A laser light demonstration will be conducted at Epcot Center, Lake Buena Vista, Florida (ORL 226 radial, 16 NM, lat 28°22′N, long 81°32′W), from 6:00 pm until 4:00 am, until further advised. The beam may be injurious to eyes if viewed within 5000 feet vertically and/or 1 nautical mile laterally of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

Miami, Florida

A permanent laser light demonstration will be conducted at Bayfront Park, Miami, Florida (VKZ 312 radial, 2.24 NM, Lat 25°46′41″N, Lon 80°11′12″W), from 8:00 p.m. until 12:00 a.m. until further advised. The laser light beam is not expected to elevate above the horizon from a 90 foot high platform. Laser light beam may be injurious to eyes if viewed within 4,400 feet laterally of the light source. Cockpit illumination–flash blindness may occur beyond these distances.

Miami Beach, Florida

A permanent Laser Light Demonstration will be conducted at the Amnesia Club, located in Miami Beach, Florida, Lat 25°46″N/Long 80°08″W, nightly from dusk until 2 AM.

Laser Light beam may be injurious to eyes if viewed within 3,500 feet vertically and/or 2,000 feet laterally of the light source. Cockpit illumination–flash blindness may occur beyond these distances.

Orlando, Florida

A laser light demonstration will be conducted at Sea World of Florida, Orlando, Florida (ORL 220 radial, 11 NM, Lat 27°24′N, Long 81°27′W), from 6:30 pm until 12:00 am, until further advised. The beam may be injurious to eyes if viewed within 5000 feet vertically and/or 6500 feet laterally of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

A permanent laser light demonstration will be conducted at the Walt Disney World, Alien Encounter, Orlando, Florida, ORL VORTAC 239 radial, 15 nautical miles, from Dusk to 12:00 AM daily.

Laser light beam may be injurious to eyes if viewed within 2500 feet laterally and/or 2500 feet vertically of the light source. Cockpit illumination–flash blindness may occur beyond these distances.

Decatur, Georgia

Laser light activity will be conducted at Agnes Scott College, Decatur, GA located at Lat 33° 45′ 55″N/Long 84° 17′ 39″W (ATL 041° radial, 11 NM), intermittent daily, at an angle of 90 degrees from the surface, projecting up to 14,036 feet, until further notice. Flash blindness or cockpit illumination may occur beyond these distances.

Clemson, South Carolina

A permanent laser light demonstration will be conducted at Clemson University, Clemson, South Carolina, ELW VORTAC 353R/18NM, from dusk until dawn, daily.

Laser light beam may be injurious to eyes if viewed within 3,500 feet laterally and/or 3,500 feet vertically of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

LASER LIGHT EXPERIMENT

Arecibo Observatory, Puerto Rico

Location: 18°–20′–37″N 66°–45′–11″W

A Laser Light Beam Experiment will be conducted at the Arecibo Observatory, Puerto Rico (PSE 340/30), from one hour before sunset until one hour after sunrise twice weekly (by NOTAM).

Laser light beam may be injurious to eyes if viewed within 5,000 feet vertical and/or one nautical mile lateral of the light source. Cockpit illumination–flash blindness may occur beyond these distances.

MEMPHIS, TN
MEMPHIS INTL AIRPORT (MEM) NOISE ABATEMENT PROCEDURES

Successive or simultaneous departures from Runways 18L and 18R are authorized, with course divergence beginning no later than 2 miles from the departure end of parallel runways, due to noise abatement restrictions.

NASHVILLE, TN
NASHVILLE INTL AIRPORT (BNA) NOISE ABATEMENT PROCEDURES

Successive or simultaneous departures from Runways 20L and 20R are authorized, with course divergence beginning within 1mile of the departure end of parallel runways, due to noise abatement restrictions.

CHARLOTTE, NC
CHARLOTTE/DOUGLAS INTL AIRPORT (CLT) NOISE ABATEMENT PROCEDURES

Successive or simultaneous departures from Runways 18L and 18R are authorized, with course divergence beginning no later than 3 miles from the departure end of parallel runways, due to noise abatement restrictions.

AIRSPACE DELEGATED TO MACDILL AFB, FL

From 1100–2300 UTC (0700–1900 Local) daily, the following airspace that lies within the Tampa CLASS B Airspace will be delegated to McDill AFB ATCT for airport traffic control services, and CLASS B Airspace services will not be provided within this portion of the CLASS B Airspace:

That airspace which extends from 1,200 feet MSL up to and including 1,600 feet MSL, south of a line located 1½ miles west of and parallel to MacDill AFB Runway 4/22 extended runway centerline, within a 4.5 NM radius from the geographical center of the MacDill AFB Airport.

Indianapolis ARTCC
NABB, INDIANA AREA

New Hope, London, Lexington Kentucky Area

Indianapolis Center has installed frequencies in the southern portion of their airspace that require 720–channel radio capability.

Pilots should be aware that if they fly in the Nabb, IN, or the New Hope, London, and Lexington, KY, area without a 720-channel radio, ATC services will be greatly reduced. Traffic advisories, weather information, airport information, along with any other direct communication services will not be available.

While in this area of Indianapolis Center, pilots without 720-channel capability will, in most cases, monitor Flight Service Stations. There will be a noticeable delay in all clearance activity. Please ensure that ATC has adequate lead time in the event of problems or clearance requirements.

HELICOPTER ACTIVITY ORLANDO, FL AREA.

Heavy helicopter activity over the Disney attractions, Sea World, Universal Studios, Bay Hill and surrounding area. Surface to 1000′ MSL. Operations 24 hours daily. Helicopters, transmitting and receiving on 123.02.

CAUTION–TETHERED AEROSTAT RADAR SYSTEM (TARS)

A TARS (a large helium-filled balloon) operates continuously up to 14,000 feet, except during inclement weather or when the system is down for maintenance, in R–2916 at Cudjoe Key, Florida. The tether is unmarked and is virtually impossible to see from only a few hundred feet. See the Miami Sectional Chart for location.

SPECIAL NORTH ATLANTIC, CARIBBEAN AND PACIFIC AREA COMMUNICATIONS

VHF air-to-air frequencies enable aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problems.

Frequencies have been designated as follows:

North Atlantic area:	123.45 MHz
Caribbean area:	123.45 MHz
Pacific area:	123.45 MHz

ST. PETERSBURG, FLORIDA

Pilots planning to overfly the St. Petersburg VORTAC (PIE) below 13,000 feet MSL should file via the Lakeland VORTAC (LAL) between 1100 and 2300 UTC.

GEORGIA

Atlanta Tower: Low altitude airway structure in proximity of the Hartsfield–Jackson Atlanta Intl Airport is aligned to provide bypass routes for traffic overflying Atlanta. To avoid heavy concentration of high performance and wide-bodied aircraft, pilots should file for airways beyond 35 nautical miles from Atlanta VOR. Aircraft operating IFR below 15,000 MSL, via airways within 35 nautical miles of Atlanta VOR may expect altitude changes and/or rerouting between the hours 0830 and 2100 local.

U.S. SPECIAL CUSTOMS REQUIREMENT

Air Commerce Regulations of the Treasury Department's Customs Service require all private aircraft arriving in the U.S. from a foreign place in the Western Hemisphere, (a) south of 33 degrees north latitude which cross into the U.S. over a point on the U.S./Mexican border between 97 and 120 degrees west longitude, or (b) south of 31 degrees north latitude which enter the U.S. via the Gulf of Mexico and Atlantic Coasts, to provide notice of intended arrival to the Customs Service at least one hour prior to crossing the U.S./Mexican border or the U.S. coastline. This notice may be provided by: (1) radio through an appropriate FAA Flight Service Station, (2) normal FAA flight plan notification procedures (a flight plan filed in Mexico does not meet this requirement due to unreliable relay of data), or (3) directly to the District Director of Customs or other Customs officer at place of first intended landing. Unless an exemption has been granted by Customs, private aircraft are required to make first landing in the U.S. at one of the following designated airports nearest to the point of border or coastline crossing:

Brownsville/South Padre Island International, Corpus Christi International, Del Rio International, El Paso International, Laredo International, Maverick County Memorial International, McAllen Miller International, Presidio-Lely International, Southwest Texas Regional, or William P. Hobby Airport in Texas; Calexico International, or Brown Field Municipal in California; Bisbee Douglas International, Nogales International, Tuscon International, or Yuma MCAS/Yuma International in Arizona; Las Cruces Intl in New Mexico; Lakefront or Louis Armstrong New Orleans Intl in Louisiana; Fort Lauderdale Executive, Fort Lauderdale-Hollywood International, Key West International, Miami International, Opa-Locka Executive Airport, Palm Beach International, St. Lucie County International, or Tampa International in Florida.

MILITARY TRAINING ROUTES

The DOD Flight Information Publication AP/1B provides textual and graphic descriptions and operating instructions for all military training routes (IR, VR, SR) and refueling tracks/anchors. Complete and more comprehensive information relative to policy and procedures for IRs and VRs is published in FAA Handbook 7610.4 (Special Military Operations) which is agreed to by the DOD and therefore directive for all military flight operations. The AP/1B is the official source of route data for military users.

CIVIL USE OF MILITARY FIELDS:

U.S. Army, Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission.

Army Installations, prior permission is required from the Commanding Officer of the installation.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (PRPOC) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (PRPOC), Washington, D.C. 20330.

Use of USAF installations must be specifically justified.

For Navy and Marine Corps installations prior permission should be requested at least 30 days prior to first intended landing. An Aviation Facility License must be approved and executed by the Navy prior to any landing by civil aircraft.

Forms and further information may be obtained from the nearest U.S. Navy or Marine Corps aviation activity.

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

AIRCRAFT RESTRICTIONS BOCA RATON AIRPORT (BCT), FLORIDA

On initial contact, pilot should advise local Air Traffic Control Tower or announce on local Unicom frequency if aircraft has greater than 79 feet wingspan and/or greater than 140 knot approach speed. Aircraft with wingspan greater than 79 feet and/or an approach speed greater than 140 knots are prohibited from using Runway 5/23 while any aircraft occupies Taxiway P. Aircraft with a wingspan greater than 79 feet must remain clear of Taxiway P while any aircraft are approaching or departing Runway 5/23.

AIRCRAFT LANDING RESTRICTIONS

Landing of aircraft at locations other than public use airports may be a violation of Federal or local law. All land and water areas are owned or controlled by private individuals or organizations, states, cities, local governments, or U.S. Government agencies. Except in emergency, prior permission should be obtained before landing at any location that is not a designated public use airport or seaplane base.

Landing of aircraft is prohibited on lands or waters administered by the National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, and on many areas controlled by the U.S. Army Corps of Engineers, unless prior authorization is obtained from the respective agency.

FEDERAL AVIATION REGULATION 91.713

The provisions of FAR 91.713 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that the flight plan be filed with appropriate authorities at least five days prior to the proposed departure time. Route changes while en route will normally not be authorized. The procedures set forth herein do not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service.

CAUTION—HIGH DENSITY AIR TRAFFIC AREA

Heavy helicopter and seaplane traffic exists over the Gulf of Mexico and adjacent onshore areas. Thousands of operations per month occur in this area in support of oil drilling and exploration.

Itinerant pilots traversing this area should familiarize themselves with offshore operating practices and frequencies through contact with the pertinent Flight Standards District Office (FSDO) or Flight Service Station.

CONTINUOUS POWER FACILITIES

In order to insure that a basic ATC system remains in operation despite an areawide or catastrophic commercial power failure, key equipment and certain airports have been designated to provide a network of facilities whose operational capability can be utilized independent of any commercial power supply.

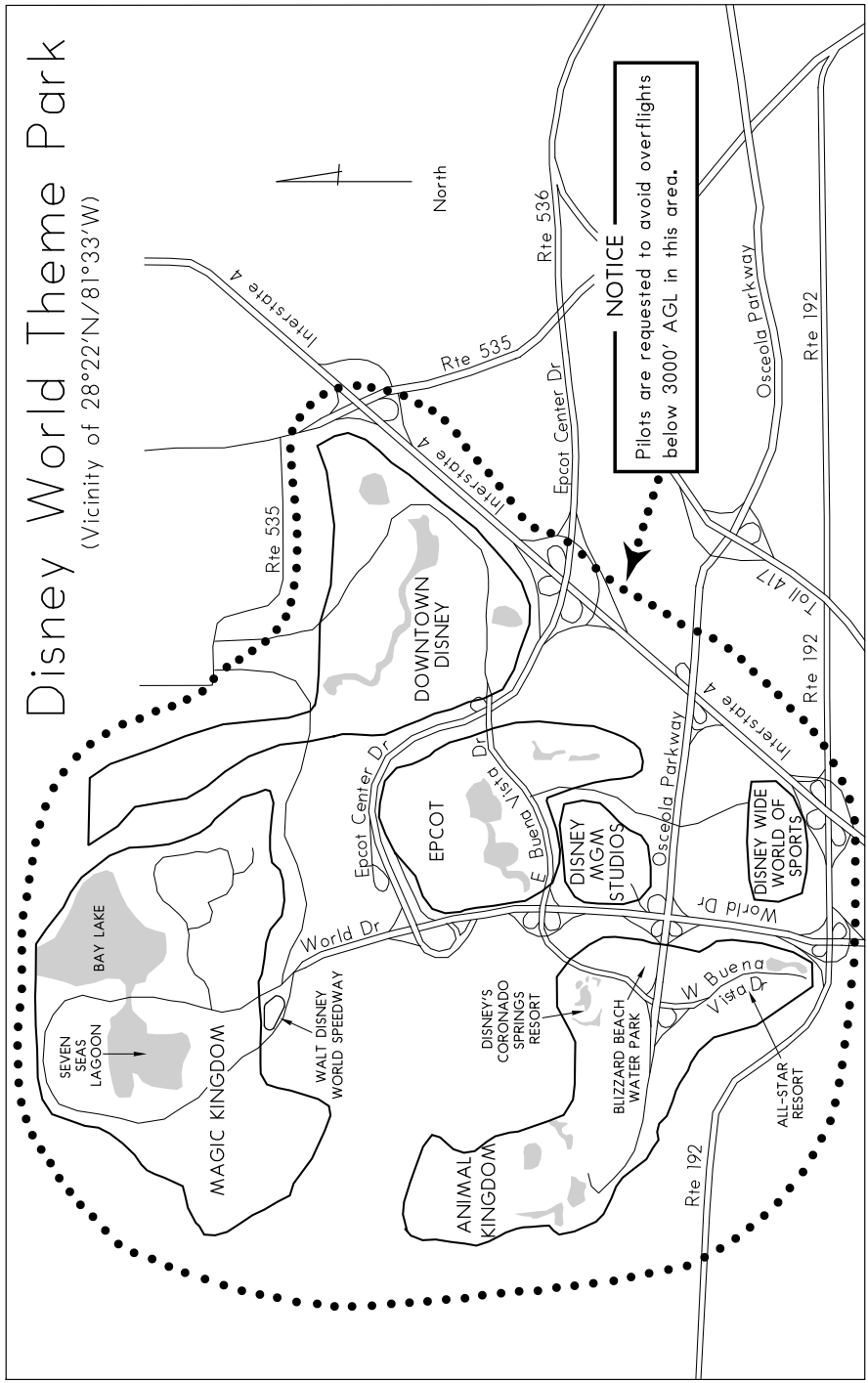
In addition to those facilities comprising the basic ATC system, the following approach and lighting aids have been included in this program for a selected runway.

1. ILS (Localizer, Glide Slope, COMLO, Inner, Middle and Outer Markers)
2. Wind Measuring Capability
3. Approach Light System (ALS) or Short ALS (SALS)
4. Ceiling Measuring Capability
5. Touchdown Zone Lighting (TDZL)
6. Centerline Lighting (CL)
7. Runway Visual Range (RVR)
8. High Intensity Runway Lighting (HIRL)
9. Taxiway Lighting
10. Apron Light (Perimeter Only)

The following have been designated ''Continuous Power Airports,'' and have independent back up capability for the equipment installed.

Airport/Ident	Runway No.	Airport/Ident	Runway No.
Albuquerque, NM (ABQ)	08	Milwaukee, WI (MKE)	01L
Anchorage, AK (ANC)	07R	Minneapolis, MN (MSP)	30L
Andrews AFB, MD (ADW)	01L	Nashville, TN (BNA)	02L
Atlanta, GA (ATL)	09R	New Orleans, LA (MSY)	10
Baltimore, MD (BWI)	10	New York, NY (JFK)	04R
Bismarck, ND (BIS)	31	New York, NY (LGA)	22
Boise, ID (BOI)	10R	Newark, NJ (EWR)	04R
Boston, MA (BOS)	04R	Oklahoma City, OK (OKC)	35R
Charlotte, NC (CLT)	36L	Omaha, NE (OMA)	14R
Chicago, IL (ORD)	10	Ontario, CA (ONT)	26L
Cincinnati, OH (CVG)	36C	Philadelphia, PA (PHL)	09R
Cleveland, OH (CLE)	06R	Phoenix, AZ (PHX)	08
Dallas/Fort Worth, TX (DFW)	17C	Pittsburgh, PA (PIT)	10L
Denver, CO (DEN)	35R	Reno, NV (RNO)	16R
Des Moines, IA (DSM)	31	Salt Lake City, UT (SLC)	34L
Detroit, MI (DTW)	03R	San Antonio, TX (SAT)	12R
El Paso, TX (ELP)	22	San Diego, CA (SAN)	09
Fairbanks, AK (FAI)	01L	San Francisco, CA (SFO)	28R
Great Falls, MT (GTF)	03	San Juan, PR (SJU)	08
Honolulu, HI (HNL)	08L	Seattle, WA (SEA)	16C
Houston, TX (IAH)	26L	St. Louis, MO (STL)	30R
Indianapolis, IN (IND)	05L	Tampa, FL (TPA)	36L
Jacksonville, FL (JAX)	07	Tulsa, OK (TUL)	36R
Kansas City, MO (MCI)	19R	Washington, DC (DCA)	01
Los Angeles, CA (LAX)	24R	Washington, DC (IAD)	01R
Memphis, TN (MEM)	36L	Wichita, KS (ICT)	01L
Miami, FL (MIA)	08R		

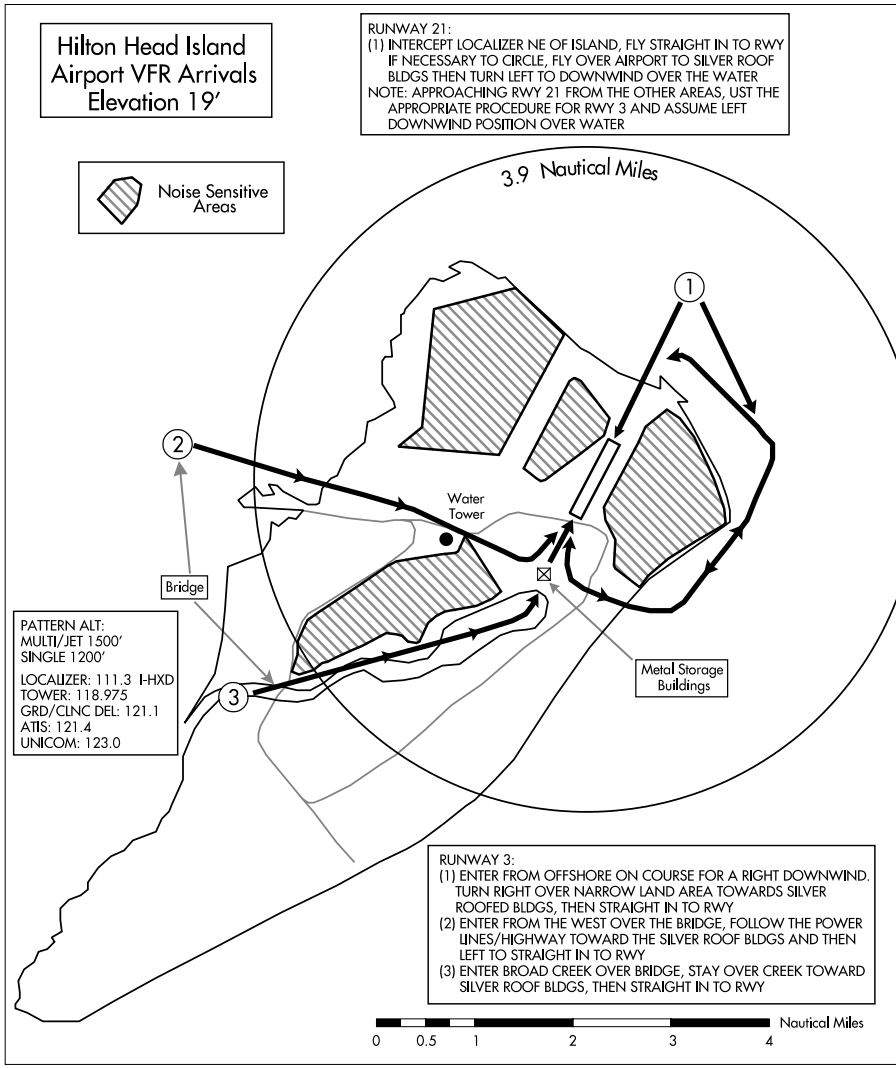
NOTE—The existing CPA runway is listed. Pending and future changes at some locations will require a revised runway designation.

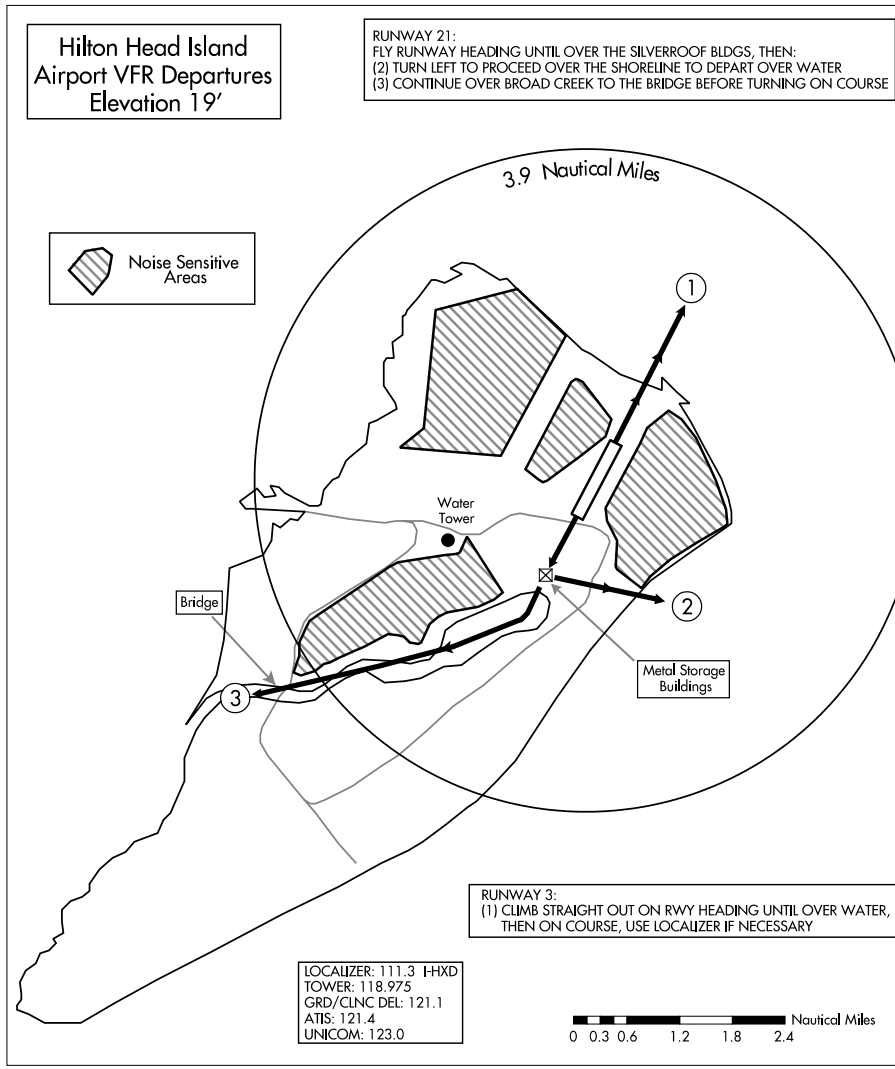

Disney World Theme Park
(Vicinity of 28°22'N/81°33'W)
North
NOTICE
Pilots are requested to avoid overflights below 3000' AGL in this area.
Interstate 4
Rte 535
Rte 536
Epcot Center Dr
Osceola Parkway
Rte 192
Toll 417
DOWNTOWN DISNEY
EPCOT
DISNEY MGM STUDIOS
DISNEY WIDE WORLD OF SPORTS
E Buena Vista Dr
W Buena Vista Dr
World Dr
BAY LAKE
SEVEN SEAS LAGOON
MAGIC KINGDOM
WALT DISNEY WORLD SPEEDWAY
DISNEY'S CORONADO SPRINGS RESORT
BLIZZARD BEACH WATER PARK
ANIMAL KINGDOM
ALL-STAR RESORT

DISNEY WORLD THEME PARK

NOTICE

Pursuant to Public Law 108–199, Section 521, aircraft flight operations are prohibited at and below 3,000 feet AGL within a 3 nautical mile radius of the Disney World Theme Park (282445N/081342W or the Orlando (ORL) VORTAC 238 degree radial at 14.8 nautical miles). This restriction does not apply to: (A) those aircraft authorized by ATC for operational or safety purposes, including aircraft arriving or departing from an airport using standard air traffic procedures; (B) Department of Defense, law enforcement, or aeromedical flight operations that are in contact with ATC; Those who meet any of the following criteria may apply for a waiver to these restrictions: (A) for operational purposes of the venue, including the transportation of equipment or officials of the governing body; (b) for safety and security purposes of the venue.


Hilton Head Island
Airport VFR Arrivals
Elevation 19'
RUNWAY 21:
(1) INTERCEPT LOCALIZER NE OF ISLAND, FLY STRAIGHT IN TO RWY IF NECESSARY TO CIRCLE, FLY OVER AIRPORT TO SILVER ROOF BLDGS THEN TURN LEFT TO DOWNWIND OVER THE WATER
NOTE: APPROACHING RWY 21 FROM THE OTHER AREAS, UST THE APPROPRIATE PROCEDURE FOR RWY 3 AND ASSUME LEFT DOWNWIND POSITION OVER WATER
Noise Sensitive Areas
3.9 Nautical Miles
1
2
3
Water Tower
Bridge
Metal Storage Buildings
PATTERN ALT:
MULTI/JET 1500'
SINGLE 1200'
LOCALIZER: 111.3 I-HXD
TOWER: 118.975
GRD/CLNC DEL: 121.1
ATIS: 121.4
UNICOM: 123.0
RUNWAY 3:
(1) ENTER FROM OFFSHORE ON COURSE FOR A RIGHT DOWNWIND. TURN RIGHT OVER NARROW LAND AREA TOWARDS SILVER ROOFED BLDGS, THEN STRAIGHT IN TO RWY
(2) ENTER FROM THE WEST OVER THE BRIDGE, FOLLOW THE POWER LINES/HIGHWAY TOWARD THE SILVER ROOF BLDGS AND THEN LEFT TO STRAIGHT IN TO RWY
(3) ENTER BROAD CREEK OVER BRIDGE, STAY OVER CREEK TOWARD SILVER ROOF BLDGS, THEN STRAIGHT IN TO RWY
Nautical Miles
0 0.5 1 2 3 4


Hilton Head Island
Airport VFR Departures
Elevation 19′
RUNWAY 21:
FLY RUNWAY HEADING UNTIL OVER THE SILVERROOF BLDGS, THEN:
(2) TURN LEFT TO PROCEED OVER THE SHORELINE TO DEPART OVER WATER
(3) CONTINUE OVER BROAD CREEK TO THE BRIDGE BEFORE TURNING ON COURSE
3.9 Nautical Miles
Noise Sensitive Areas
1
Water Tower
Bridge
2
3
Metal Storage Buildings
RUNWAY 3:
(1) CLIMB STRAIGHT OUT ON RWY HEADING UNTIL OVER WATER, THEN ON COURSE, USE LOCALIZER IF NECESSARY
LOCALIZER: 111.3 I-HXD
TOWER: 118.975
GRD/CLNC DEL: 121.1
ATIS: 121.4
UNICOM: 123.0
Nautical Miles
0 0.3 0.6 1.2 1.8 2.4

BOWMAN FIELD

LOUISVILLE, KY

TERMINAL AREA GRAPHIC NOTICE

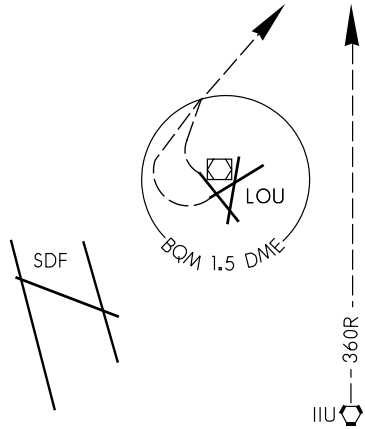
(Not to be used for navigation)

Bowman Airport Runway 24 and Runway 33 VFR Departure Procedure.

"SENECA DEPARTURE"

PILOTS SHOULD SPECIFICALLY REQUEST THIS PROCEDURE USING THE ABOVE NAME.

ATIS 112.2
LOUISVILLE APP CON
132.075
BOWMAN TOWER★
119.5
GND CON
121.8
CLNC DEL
118.9



Remaining within 1½ miles from Bowman VOR (BQM), turn right heading 045, maintaining VFR at or below 2500 feet. Expect IFR activation and climb upon crossing the IIU 360 radial

WEATHER MINIMUMS: Ceiling 3000 and visibility 3 miles.

NOTE: Receipt of a clearance to climb above 2500 feet constitutes activation of IFR clearance upon leaving 2500 feet.

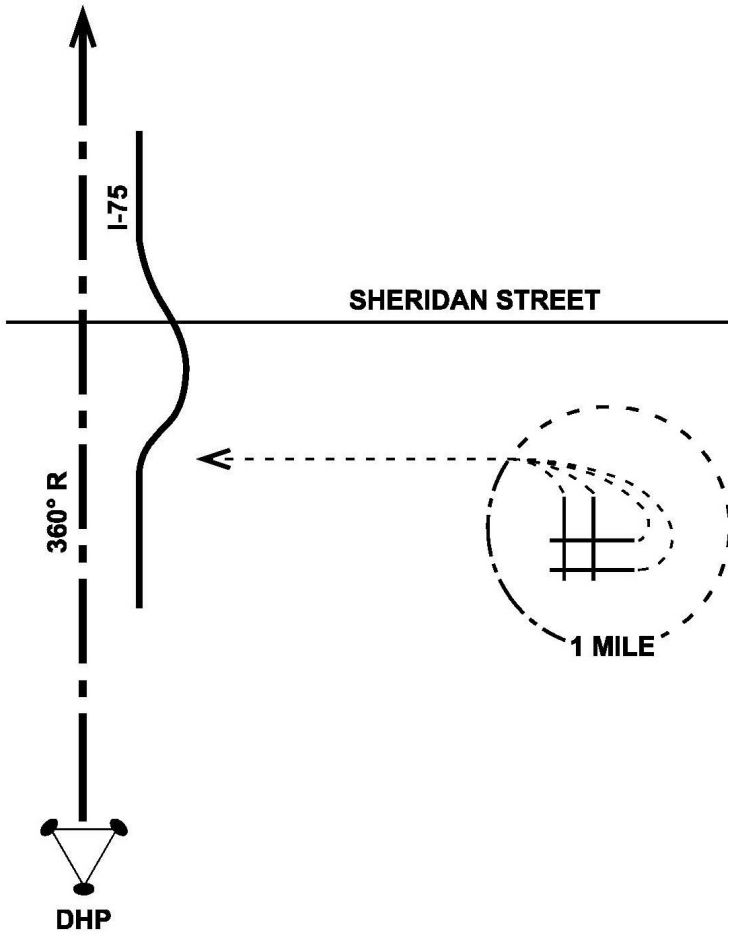
HOLLYWOOD/NORTH PERRY (HWO)
HOLLYWOOD, FL

TERMINAL AREA GRAPHIC NOTICE
(Not to be used for navigation)

Hollywood/North Perry Airport Runway 9L, 9R, 36L and 36R VFR Departure Procedure.

"SHERIDAN DEPARTURE"

PILOTS SHOULD SPECIFICALLY REQUEST THIS PROCEDURE USING THE ABOVE NAME.



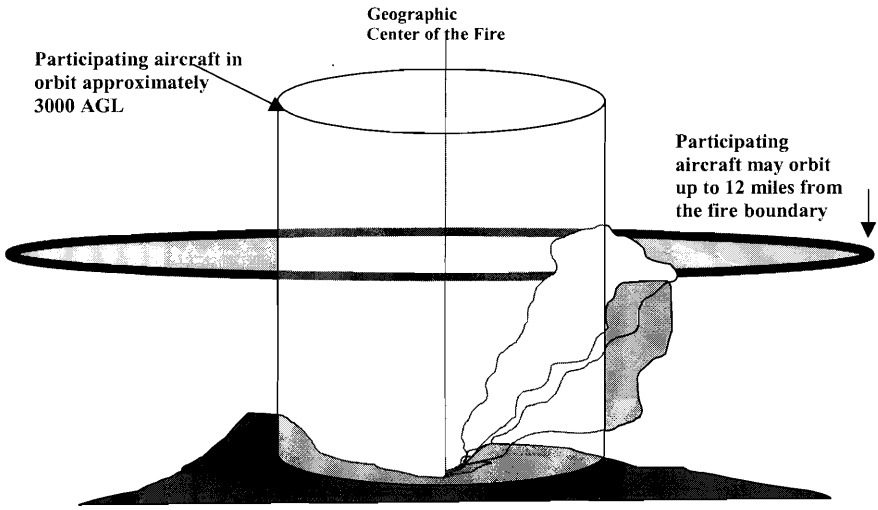
ATIS 135.475
MIAMI APPROACH CONTROL 128.6
NORTH PERRY TOWER 132.1
GROUND CONTROL 120.45

Remain within 1 mile from HWO airport, if departing north or east turn left to heading 260. Remain south of Sheridan Street VFR at or below 1500. Expect IFR activation and climb crossing I75 (5 miles west of HWO) or the DHP 360 radial.

WEATHER MINIMUMS: Ceiling 2000 and visibility 3 miles.

NOTE: Receipt of a clearance to climb above 1500 constitutes activation of IFR clearance.

FIREFIGHTING TRAFFIC AREAS



Pilots are advised to stay clear of Firefighting Traffic Areas. Remain 15 miles from the area of activity. If you must over-fly the area, do so at an altitude of 5000 feet AGL above. However, to remain safe and out of the way of working aircraft, it is best to circumnavigate the area.

The wild-land fire environment can be very complex and involve a large number and variety of aircraft types including fixed and rotary wing aircraft. Some of the aircraft are small single and multi-engine command and control platforms that can be especially difficult to see and may give the appearance that the fire is not staffed. The aircraft participating in firefighting can orbit as far out as 12 miles from the perimeter of the fire. Any intrusion by aircraft not directly involved in the firefighting operation could delay the delivery of much needed retardant or water to ground firefighters and will adversely affect the safety of participating aircraft. Please stay well away from wild-land fires even if you feel that aircraft are not working the fire; they may be en route or unseen.

If you see a fire developing along your route, report it immediately to air traffic control who will advise the US Forest Service. The firefighting community would welcome this information.

The following narratives summarize the FAR Part 93 Special Air Traffic Rules, Patterns, and/or Airport Traffic Patterns in effect as prescribed in the rule. This information is advisory in nature and in no way relieves the pilot from compliance with the specific rules set forth in FAR Parts 91 and 93.

Special Airport Traffic Areas prescribed in Part 93 are depicted on Sectional Aeronautical Charts, World Aeronautical Charts, Enroute Low Altitude Charts, and where applicable, on VFR Terminal Area Charts.

DESTIN–FT WALTON BEACH, FLORIDA
VALPARAISO TERMINAL AREA

Part 93, Subpart F, prescribes that Valparaiso, Florida, Terminal Area, and the special air traffic rules for operating aircraft within specific corridor.

– North-South Corridor.

Before operating within the corridor, obtain a clearance from the Eglin Radar Control Facility or an appropriate FAA ATC facility, and maintain two-way radio communication with the Eglin Radar Control Facility while within the corridor.

– East-West Corridor.

Before operating within the corridor, establish two-way radio communications with Eglin Radar Control Facility or an appropriate FAA ATC facility for an ATC advisory concerning operations being conducted therein; and maintain two-way radio communications with the Eglin Radar Control Facility while within the corridor. For Destin/Eglin AFB FL Part 93 Operations details, see FAASafety.gov Knowledge Course at: http://faasafety.gov/gslac/ALC/course_catalog.aspx.

OPERATIONS RESERVATIONS FOR HIGH DENSITY TRAFFIC AIRPORTS
KENNEDY, LAGUARDIA, AND WASHINGTON REAGAN NATIONAL

The Federal Aviation Administration (FAA) has designated New York's Kennedy and LaGuardia Airports and Washington Reagan National Airport as High Density Traffic Airports (HDTA), Title 14, Code of Federal Regulations, part 93, subpart K, and has prescribed air traffic rules and requirements for operating aircraft (excluding helicopters) to and from those airports during certain hours.

Reservations are required for operations from 6 a.m. through 11:59 p.m. local time at LaGuardia Airport and Washington Reagan National Airport. Reservations at Kennedy Airport are required from 3 p.m. through 7:59 p.m. local time.

Reservation procedures are detailed in Advisory Circular 93–1, Reservations for Unscheduled Operations at High Density Traffic Airports. A copy of the advisory circular is available on the FAA website at http://www.faa.gov. Reservations for unscheduled operations are allocated through the Enhanced Computer Voice Reservation System (e–CVRS) accessible via telephone or the Internet. This system may not be used to make reservations for scheduled air carrier or commuter flights.

The toll–free telephone number for accessing e–CVRS is 1–800–875–9694 and is available for calls originating within the United States, Canada, and the Caribbean. Users outside the toll–free areas may access e–CVRS by calling the toll number of 703–707–0568. The Internet web address for accessing the e–CVRS is http://www.fly.faa.gov/ecvrs. If you have any questions about reservation requirements or are experiencing problems with the system, you may telephone the Airport Reservation Office at the Air Traffic Control System Command Center at (703) 904–4452.

Requests for instrument flight rules (IFR) reservations will be accepted beginning 72 hours prior to the proposed time of operation at the high–density airport. For example, a request for an 11 a.m. reservation on a Thursday will be accepted beginning at 11 a.m. on the previous Monday.

IFR reservations must be obtained prior to IFR landing or takeoff at an HDTA during slot controlled hours. An air traffic control (ATC) clearance does not constitute a reservation. A reservation does not constitute permission to operate at an HDTA if additional operational limits or procedures are required by NOTAM and/or regulation.

Aircraft involved in medical emergencies will be handled by ATC without regard to a reservation after obtaining prior approval of the ATC System Command Center on (703) 904–4452. ATC will accommodate declared other emergency situations without regard to slot reservations.

NOTE: Visual flight rule (VFR) reservations via ATC for unscheduled operations at LaGuardia are not authorized from 7 a.m. through 8:59 a.m. local time and 4 p.m. through 6:59 p.m. local time, Monday through Friday and Sunday evenings, unless otherwise announced by NOTAM. Both IFR and VFR operations during those time periods must obtain an advance reservation through e–CVRS.

FSS
TELEPHONE NUMBERS

Flight Service Station (FSS) facilities provide flight planning and weather briefing services to pilots. FSS services in the contiguous United States, Hawaii and Puerto Rico, are provided by a network of large FSS facilities and a few select remote facilities some of which operate part-time. Because of the interconnectivity between the facilities, all FSS services including radio frequencies are available continuously using published data.

Telephone Information Briefing Service (TIBS) is a FSS service that provides continuous recordings of meteorological and/or aeronautical information. A touch-tone telephone is required to fully utilize this service.

Further information can be found in the Aeronautical Information Manual (AIM).

NATIONAL FSS TELEPHONE NUMBER

Pilot Weather Briefings	1–800–WX–BRIEF (1–800–992–7433)

OTHER FSS TELEPHONE NUMBERS (except in Alaska)

TIBS (see description above)	1–877–4TIBS–WX (1–877–484–2799)
Clearance Delivery Only	1–888–766–8267
Lifeguard Flights Only	1–877–LIF–GRD3 (1–877–543–4733)
Flights within DC SFRA & FRZ *	1–866–225–7410

* District of Columbia Special Flight Rules Area & Flight Restricted Zone

KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

TAF KPIT 091730Z 091818 15005KT 5SM HZ FEW020 WS010/31022KT
FM1930 30015G25KT 3SM SHRA OVC015 TEMPO 2022 1/2SM +TSRA
OVC008CB
FM0100 27008KT 5SM SHRA BKN020 OVC040 PROB40 0407 1SM -RA BR
FM1015 18005KT 6SM -SHRA OVC020 BECMG 1315 P6SM NSW SKC

METAR KPIT 091955Z COR 22015G25KT 3/4SM R28L/2600FT TSRA OVC010CB
18/16 A2992 RMK SLP045 T01820159

Forecast	Explanation	Report
TAF	Message type: TAF-routine or TAF AMD-amended forecast, METAR-hourly, SPECI-special or TESTM-non-commissioned ASOS report	**METAR**
KPIT	ICAO location indicator	**KPIT**
091730Z	Issuance time: ALL times in UTC "Z", 2-digit date, 4-digit time	**091955Z**
091818	Valid period: 2-digit date, 2-digit beginning, 2-digit ending times	
	In U.S. **METAR**: CORrected ob; or AUTOmated ob for automated report with no human intervention; omitted when observer logs on	**COR**
15005KT	Wind: 3 digit true-north direction, nearest 10 degrees (or VaRiaBle); next 2-3 digits for speed and unit, KT (KMH or MPS); as needed, Gust and maximum speed; 00000KT for calm; for **METAR**, if direction varies 60 degrees or more, Variability appended, e.g. 180V260	**22015G25KT**
5SM	Prevailing visibility: in U.S., Statute Miles & fractions; above 6 miles in **TAF** Plus6SM. (Or, 4-digit minimum visibility in meters and as required, lowest value with direction)	**3/4SM**
	Runway Visual Range: R; 2-digit runway designator Left, Center, or Right as needed; "/"; Minus or Plus in U.S., 4-digit value, FeeT in U.S., (usually meters elsewhere); 4-digit value Variability 4-digit value (and tendency Down, Up or No change)	**R28L/2600FT**
HZ	Significant present, forecast and recent weather: see table (on back)	**TSRA**
FEW020	Cloud amount, height and type: SKy Clear 0/8, FEW >0/8-2/8, SCaTtered 3/8-4/8, BroKeN 5/8-7/8, OVerCast 8/8; 3-digit height in hundreds of ft; Towering CUmulus or CumulonimBus in **METAR**; in **TAF**, only CB. Vertical Visibility for obscured sky and height "VV004". More than 1 layer may be reported or forecast. In automated **METAR** reports only, CLeaR for "clear below 12,000 feet"	**OVC010CB**
	Temperature: degrees Celsius; first 2 digits, temperature "/" last 2 digits, dew-point temperature; Minus for below zero, e.g., M06	**18/16**
	Altimeter setting: indicator and 4 digits; in U.S., A-inches and hundredths; (Q-hectoPascals, e.g., Q1013)	**A2992**

KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

Forecast	Explanation	Report
WS010/31022KT	In U.S. **TAF**, non-convective low-level (≤2,000 ft) Wind Shear; 3-digit height (hundreds of ft); "/"; 3-digit wind direction and 2-3 digit wind speed above the indicated height, and unit, KT	
	In **METAR**, ReMarK indicator & remarks. For example: Sea-Level Pressure in hectoPascals & tenths, as shown: 1004.5 hPa; Temp/ dew-point in tenths °C, as shown: temp. 18.2°C, dew-point 15.9°C	**RMK SLP045 T01820159**
FM1930	FroM and 2-digit hour and 2-digit minute **beginning** time: indicates significant change. Each FM starts on new line, indented 5 spaces.	
TEMPO 2022	TEMPOrary: changes expected for < 1 hour and in total, < half of 2-digit hour **beginning** and 2-digit hour **ending** time period	
PROB40 0407	PROBability and 2-digit percent (30 or 40): probable condition during 2-digit hour **beginning** and 2-digit hour **ending** time period	
BECMG 1315	BECoMinG: change expected during 2-digit hour **beginning** and 2-digit hour **ending** time period	

Table of Significant Present, Forecast and Recent Weather - Grouped in categories and used in the order listed below; or as needed in TAF, No Significant Weather.

QUALIFIER

Intensity or Proximity

- Light "no sign" Moderate + Heavy

VC Vicinity: but not at aerodrome; in U.S. **METAR**, between 5 and 10SM of the point(s) of observation; in U.S. **TAF**, 5 to 10SM from center of runway complex (elsewhere within 8000m)

Descriptor

MI Shallow	BC Patches	PR Partial	TS Thunderstorm
BL Blowing	SH Showers	DR Drifting	FZ Freezing

WEATHER PHENOMENA

Precipitation

DZ Drizzle	RA Rain	SN Snow	SG Snow grains
IC Ice crystals	PL Ice pellets	GR Hail	GS Small hail/snow pellets

UP Unknown precipitation in automated observations

Obscuration

BR Mist (≥5/8SM)	FG Fog (<5/8SM)	FU Smoke	VA Volcanic ash
SA Sand	HZ Haze	PY Spray	DU Widespread dust

Other

SQ Squall	SS Sandstorm	DS Duststorm	PO Well developed dust/sand whirls
FC Funnel cloud	+FC tornado/waterspout		

- Explanations in parentheses "()" indicate different worldwide practices.
- Ceiling is not specified; defined as the lowest broken or overcast layer, or the vertical visibility.
- NWS **TAFs** exclude turbulence, icing & temperature forecasts; NWS **METARs** exclude trend fcsts
- Although not used in US, Ceiling And Visibility OK replaces visibility, weather and clouds if: visibility ≥10 km; no cloud below 5000 ft (1500 m) or below the highest minimum sector altitude, whichever is greater and no CB; and no precipitation, TS, DS, SS, MIFG, DRDU, DRSA or DRSN.

UNITED STATES DEPARTMENT OF COMMERCE
NOAA/PA 96052 **National Oceanic and Atmospheric Administration**—National Weather Service

FAA AND NWS
KEY AIR TRAFFIC FACILITIES

Air Traffic Control System Command Center

Main Number.....703–904–4400

RGNL AIR TRAFFIC DIVISIONS

REGION	TELEPHONE
Alaskan	907–271–5464
Central	816–329–2500
Eastern	718–553–4502
Great Lakes	847–294–7202
New England	781–238–7500
Northwest Mountain	425–227–2500
Southern	404–305–5500
Southwest	817–222–5500
Western Pacific	310–725–6500

AIR ROUTE TRAFFIC CONTROL CENTERS (ARTCCs)

ARTCC NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque	817–222–5006	7:30 a.m.–4:00 p.m.	505–856–4300
Anchorage	907–271–5936	7:30 a.m.–4:00 p.m.	907–269–1137
Atlanta	404–305–5180	7:30 a.m.–5:00 p.m.	770–210–7601
Boston	617–238–7001	7:30 a.m.–4:00 p.m.	603–879–6633
Chicago	847–294–8400	8:00 a.m.–4:00 p.m.	630–906–8221
Cleveland	847–294–8400	8:00 a.m.–4:00 p.m.	440–774–0310
Denver	425–227–1389	7:30 a.m.–4:00 p.m.	303–651–4100
Ft. Worth	817–222–5006	7:30 a.m.–4:00 p.m.	817–858–7300
Houston	817–222–5006	7:30 a.m.–4:00 p.m.	281–230–5300
Indianapolis	847–294–8400	8:00 a.m.–4:00 p.m.	317–247–2231
Jacksonville	404–305–5180	8:00 a.m.–4:30 p.m.	904–549–1501
Kansas City	816–329–3000	7:30 a.m.–4:00 p.m.	913–254–8500
Los Angeles	661–265–8200	7:30 a.m.–4:00 p.m.	661–265–8200
Memphis	404–305–5180	7:30 a.m.–4:00 p.m.	901–368–8103
Miami	404–305–5180	7:00 a.m.–3:30 p.m.	305–716–1500
Minneapolis	847–294–8400	8:00 a.m.–4:00 p.m.	651–463–5580
New York	718–995–5426	8:00 a.m.–4:40 p.m.	516–468–1001
Oakland	310–725–3300	6:30 a.m.–3:00 p.m.	510–745–3331
Salt Lake City	425–227–1389	7:30 a.m.–4:00 p.m.	801–320–2500
Seattle	425–227–1389	7:30 a.m.–4:00 p.m.	253–351–3500
Washington	718–995–5426	8:00 a.m.–4:30 p.m.	703–771–3401

MAJOR TERMINAL RADAR APPROACH CONTROLS (TRACONs)

TRACON NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Atlanta	404–305–5180	7:00 a.m.–3:30 p.m.	404–669–1200
Chicago	847–294–8400	8:00 a.m.–4:00 p.m.	847–608–5509
Dallas/Ft. Worth	817–222–5006	7:30 a.m.–4:00 p.m.	972–615–2500
Denver	425–227–1389	7:30 a.m.–4:00 p.m.	303–342–1500
Houston	817–222–5006	7:30 a.m.–4:00 p.m.	281–230–8400
New York	718–995–5426	8:00 a.m.–4:30 p.m.	516–683–2901
Northern CA	310–725–3300	7:00 a.m.–3:30 p.m.	916–366–4001
Potomac	718–995–5426	8:00 a.m.–4:30 p.m.	540–349–7500
Southern CA	310–725–3300	7:30 a.m.–4:00 p.m.	858–537–5800

*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

KEY AIR TRAFFIC FACILITIES

DAILY NAS REPORTABLE AIRPORTS

AIRPORT NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque Intl Sunport, NM	817–222–5006	8:00 a.m.–5:00 p.m.	505–842–4366
Andrews AFB, MD	718–995–5426	8:00 a.m.–4:30 p.m.	301–735–2380
Baltimore/Washington Intl Thurgood Marshall, MD	718–995–5426	8:00 a.m.–4:30 p.m.	410–962–3555
Boston Logan Intl, MA	781–238–7001	7:30 a.m.–4:00 p.m.	617–455–3100
Bradley Intl, CT	617–238–7001	7:30 a.m.–4:00 p.m.	203–627–3428
Burbank/Bob Hope, CA	310–725–3300	7:00 a.m.–5:30 p.m.	818–567–4806
Charlotte Douglas Intl, NC	404–305–5180	8:00 a.m.–4:30 p.m.	704–344–6487
Chicago Midway, IL	847–294–8400	8:00 a.m.–4:00 p.m.	773–884–3670
Chicago O'Hare Intl, IL	847–294–8400	8:00 a.m.–4:00 p.m.	773–601–7600
Cleveland Hopkins Intl, OH	847–294–8400	8:00 a.m.–4:00 p.m.	216–898–2020
Covington/Cincinnati, OH	708–294–7401	8:00 a.m.–4:30 p.m.	606–767–1006
Dallas/Ft. Worth Intl, TX	817–222–5006	8:30 a.m.–5:00 p.m.	972–615–2531
Dayton Cox Intl, OH	847–294–8400	7:30 a.m.–4:00 p.m.	937–454–7300
Denver Intl, CO	425–227–1389	7:30 a.m.–4:00 p.m.	303–342–1600
Detroit Metro, MI	847–294–8400	8:00 a.m.–4:00 p.m.	734–955–5000
Fairbanks Intl, AK	907–271–5936	7:30 a.m.–4:00 p.m.	907–474–0050
Fort Lauderdale Intl, FL	404–305–5180	7:00 a.m.–3:30 p.m.	305–356–7932
George Bush Intercontinental/Houston, TX	817–222–5006	7:30 a.m.–4:00 p.m.	713–230–8400
Hartsfield–Jackson Atlanta Intl, GA	404–305–5180	7:00 a.m.–3:30 p.m.	404–669–1200
Honolulu Intl, HI	310–643–3200	7:30 a.m.–4:00 p.m.	808–840–6100
Houston Hobby, TX	817–222–5006	8:00 a.m.–5:00 p.m.	713–847–1400
Indianapolis Intl, IN	847–294–8400	8:00 a.m.–4:00 p.m.	317–484–6600
Kahului/Maui, HI	310–643–3200	7:30 a.m.–4:00 p.m.	808–877–0725
Kansas City Intl, MO	816–329–3000	7:30 a.m.–4:00 p.m.	816–329–2700
Las Vegas McCarran, NV	310–725–3300	7:30 a.m.–4:00 p.m.	702–262–5978
Los Angeles Intl, CA	310–725–3300	7:00 a.m.–3:30 p.m.	310–342–4900
Louis Armstrong New Orleans Intl, LA	817–222–5006	7:00 a.m.–4:30 p.m.	504–471–4300
Memphis Intl, TN	404–305–5180	7:30 a.m.–4:00 p.m.	901–322–3350
Miami Intl, FL	404–305–5180	7:00 a.m.–4:00 p.m.	305–869–5400
Minneapolis/St. Paul, MN	847–294–8400	8:00 a.m.–4:00p.m.	612–713–4000
Nashville Intl, TN	404–305–5180	7:00 a.m.–3:30 p.m.	615–781–5460
New York Kennedy Intl, NY	718–995–5426	8:00 a.m.–4:30 p.m.	718–656–0335
New York La Guardia, NY	718–995–5426	8:00 a.m.–4:30 p.m.	718–335–5461
Newark Liberty Intl, NJ	718–995–5426	7:30 a.m.–4:00 p.m.	973–565–5000
Norman Y. Mineta San Jose Intl, CA	310–643–3200	7:30 a.m.–4:00 p.m.	408–982–0750
Ontario Intl, CA	310–643–3200	7:30 a.m.–4:00 p.m.	909–983–7518
Orlando Intl, FL	404–305–5180	7:30 a.m.–5:00 p.m.	407–850–7000
Philadelphia Intl, PA	718–995–5426	8:00 a.m.–4:30 p.m.	215–492–4100
Phoenix Sky Harbor Intl, AZ	310–643–3200	7:30 a.m.–4:00 p.m.	602–379–4226
Pittsburgh Intl, PA	718–995–5426	8:00 a.m.–4:30 p.m.	412–269–9237
Portland Intl, OR	425–227–1389	7:30 a.m.–4:00 p.m.	503–493–7500
Raleigh-Durham, NC	404–305–5180	8:00 a.m.–4:30 p.m.	919–840–5544
Ronald Reagan Washington National, DC	718–995–5426	8:00 a.m.–4:30 p.m.	703–413–1535
Salt Lake City, UT	425–227–1389	7:30 a.m.–4:00 p.m.	801–325–9600
San Antonio Intl, TX	817–222–5006	8:00 a.m.–4:30 p.m.	210–805–5507
San Diego Lindbergh Intl, CA	310–725–3300	8:00 a.m.–4:30 p.m.	619–299–0677
San Francisco Intl, CA	310–643–3200	7:00 a.m.–3:30 p.m.	650–876–2883
San Juan Intl, PR	404–305–5180	7:30 a.m.–5:00 p.m.	809–253–8663
Seattle–Tacoma Intl, WA	425–227–1389	7:30 a.m.–4:00 p.m.	206–768–2900
St. Louis Lambert, MO	816–329–3000	7:30 a.m.–4:00 p.m.	314–890–1000
Tampa Intl, FL	404–305–5180	7:30 a.m.–4:00 p.m.	813–371–7700
Ted Stevens Anchorage Intl, AK	907–271–5936	7:30 a.m.–4:00 p.m.	907–271–2700
Teterboro, NJ	718–995–5426	8:00 a.m.–4:30 p.m.	201–288–1889
Washington Dulles Intl, DC	718–995–5426	8:00 a.m.–4:30 p.m.	703–661–6031
West Palm Beach, FL	404–305–5180	8:00 a.m.–4:30 p.m.	561–683–1867
Westchester Co, NY	718–995–5426	8:00 a.m.–4:30 p.m.	914–948–6520

*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

Air Route Traffic Control Center frequencies and their remoted transmitter sites are listed below for the coverage of this volume. Bold face type indicates high altitude frequencies, light face type indicates low altitude frequencies. To insure unrestricted IFR operations within the high altitude enroute sectors, the use of 720 channel communications equipment (25 kHz channel spacing) is required.

ⓇATLANTA CENTER — **H–6–9–10–12, L–18–22–24–25–26–36, A–1** **(KZTL)**
Albemarle – 133.15
Anniston – 134.95
Athens – 127.5 127.5 124.45 **120.425**
Atlanta A – 135.0
Augusta – 128.1
Birmingham – 134.05 **128.725**
Black Jack Mountain – 127.05
Chattanooga – 133.175 132.05 **126.675 124.875**
Columbus – 125.575 120.45
Crossville – 133.6 **132.675 125.925**
Foothills – 124.375
Gadsden – 133.8
Glade Springs – 127.85
Greensboro – 128.8 **124.425**
Hampton – 128.0 **127.125 126.475 124.325**
Hickory – 134.55 **132.975** 125.15
Huntsville – 126.825
Jonesville – 132.625 **125.025**
Macon – 134.5 **126.425** 123.95 **119.575**
Millen – 135.55
Monroeville – 118.55
Montgomery – 134.6 128.025 125.875 120.55
Mount Oglethorpe – 134.8 133.1 121.35
Newport – 134.075 127.55
Owing – 135.35 **125.625 123.725**
Statham – 132.475 132.475
Sugarloaf Mountain – 132.625
Tri City – 126.775 120.725
Uniontown – 133.25 132.25

ⓇHOUSTON CENTER – 134.35 — **H–6–7–8–9, L–17–18–19–20–21–22**
Arr-Dep US – 135.77 134.95 **133.75** 133.4 **132.65** 132.4 128.3 **127.8** 125.75 120.35 **(KZHU)**
Mobile – 127.65 **125.775**

ⓇINDIANAPOLIS CENTER – 133.425 **132.775 128.375** 125.55 124.525 119.55 — **H–5–9–10–12, L–16–25–26–27–29**
Evansville – 132.525 128.3 **(KZID)**
Livingston – 134.675 126.925
London 2 – 126.57 124.625 121.325
Lynch – 126.575
New Hope – 124.625 121.175
Portsmouth – 124.225 **120.275**
Tri City – 124.575
Winchester – 128.22 126.375 **123.775**

ⓇJACKSONVILLE CENTER — **H–6–7–8–9–12, L–18–21–22–24–25–35–36, A–1**
Arr-Dep US–South Atlantic Control N of 31°30′ — 135.05 S of 31°30′N 134.85 **(KZJX)**
Albany – 134.45 125.75
Alma – 135.975 133.3 132.3
Charleston – 135.05 133.625 132.475 127.95 **124.075**
Columbia – 127.875 124.7
Crestview – 134.15 **124.475** 120.2
Daytona Beach – 134.0
Dothan – 134.3
Eglin – 132.1
Florence – 134.35 133.45
Gainesville – 135.65 134.4 124.75
Glynco – 126.75
Jacksonville – 134.85 126.35
Lake City – 125.375
Lowell – 135.75 133.325 **125.175**
Millen – 132.5
Myrtle Beach – 135.05 128.7

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Panama City – 119.1
Perry Foley – 127.8
St. Augustine – 134.575 132.825 127.475 126.35
Savannah – 132.425 126.125 120.85
Tallahassee – 135.325 128.625 **128.075 125.05**
Valdosta – 133.7 125.95

ⓇMEMPHIS CENTER — 127.975 124.025 **H–5–6–9, L–15–16–17–18–22–25–26**
Columbus – 134.775 133.125 127.1 **(KZME)**
Graham – 125.85 **124.275**
Huntsville – 120.8
McKellar – 134.65 127.975 **126.45** 124.35
Memphis – 135.225 118.625
Nashville – 133.85 **124.125 118.875**
Nashville/Joelton 132.1
Paducah – 133.65
Shelbyville – 126.75
South Fulton – 128.05
Tupelo – 135.9 135.9 134.4

ⓇMIAMI CENTER **H–8, L–21–22–23–24, A–1**
Avon Park – 134.55 127.2 **126.525** **(KZMA)**
Fort Myers – 134.75 133.275
Grand Bahama Island – 134.2
Grand Turk – 135.2 132.3
Key West – 133.5 **132.2** 132.2 **124.7** 124.7
Melbourne – 135.075 128.65 124.1 **119.825**
Miami – 132.95 133.85 133.2 133.95 132.4 127.7 **126.325 124.7** 124.7
Nassau – 134.8 125.7
Pahokee – 133.55 132.45
Sarasota – 133.9 132.35 **128.225**
Vero Beach – 135.7 132.25 **125.075**
West Palm Beach – 135.175 133.4 132.15

CENTER REMARKS: All northbound IFR flights entering Miami in vicinity of Grand Turk and Great Inagua must contact Miami Center on 132.3/307.2 at least 10 minutes prior to the Miami Center boundary for an air traffic clearance. Alternate communications are avbl thru ARINC or Miami Radio. This is due to heavy air traffic congestion in this area.

ⓇSAN JUAN CENTER **H–2–3, L–5–6**
Borinquen – 135.7 135.7 124.35 **(ZSU) (MJZS)**
El Yunque – 134.3 134.3 **128.65** 128.6 **125.0** 125.0 **118.75** 118.75 **118.15** 118.15
Pico Del Este – 134.3 134.3 **128.65** 128.65 **125.0** 125.0 **118.15** 118.15

CENTER REMARKS: All acft on an IFR flight plan in the San Juan CTA and within 200 NM of San Juan are requested to ctc San Juan Center on the following frequencies: Amber 300 clockwise thru Amber 523—134.3; East of Amber 523 clockwise to North of Blue 520—125.0; Blue 520 clockwise thru Amber 636—118.15; Red 763 clockwise thru Green 431—135.7. San Juan Cerap provides IFR clearances for St Croix Christiansted on freq 121.7 when St Croix twr closed. San Juan Cerap provides IFR clearances for St Thomas Charlotte Amalie-Harry S Truman on freq 121.9 when twr closed. San Juan Cerap provides IFR clearances for Ponce-Mercedita on freq 121.9. San Juan Cerap provides IFR clearances for Mayaguez-Eugenio Maria De Hostos on freq 121.7.

ⓇWASHINGTON CENTER **H–9–10–12, L–24–25–26–29–34–35–36**
Arr-Dep US – 135.5 **133.82 133.12** 132.55 **128.52** 127.7 **127.42 124.02** 123.85 **118.82** **(KZDC)**
Green Bay – 133.725 127.75
Johnsonville – 135.2 **118.925**
Manteo – 124.725
New Bern – 135.5 **118.825**
Rocky Mount – 118.475 **132.225**
Sampson – 135.3
Whaleyville – 133.825 128.525 127.425 123.85
Wilmington – 124.025

VHF frequencies available at Flight Service Stations and at their remote communication outlets (RCO's) are listed below for the coverage of this volume. Frequencies in bold type are available all altitudes but recommended for use FL180 and above. ''T'' indicates transmit only and ''R'' indicates receive only. RCO's available at NAVAIDS are listed after the NAVAID name. RCO's not at NAVAID's are listed by name.

ANDERSON AFSS

AIKEN RCO 122.45
ALLENDALE VOR 116.7T 122.1R
ANDERSON RCO 122.2 123.6
CHARLESTON VORTAC 113.5T 122.1R 122.2 122.5
CHESTERFIELD VOR/DME 108.2T 122.05R
COLLIERS VORTAC 113.9T 122.1R
COLUMBIA VORTAC 114.7T 122.1R 122.65
FLORENCE VORTAC 115.2T 122.1R 122.6
FOOTHILLS VORTAC 113.4T 122.1R
FORT MILL VORTAC 112.4T 122.1R
GRAND STRAND VORTAC 117.6T 122.1R 123.6
GREENWOOD VORTAC 115.5T 122.1R 122.625
GREER RCO 122.2 122.65
HILTON HEAD ISLAND RCO 122.55
SPARTANBURG VORTAC 115.7T 122.1R
VANCE VORTAC 110.4T 122.1R

ANNISTON AFSS

ANNISTON RCO 122.2 123.6
BIRMINGHAM RCO 122.2 123.65
BROOKLEY VORTAC 112.8T 122.1R
CRIMSON VORTAC 117.8T 122.1R
DECATUR RCO 122.6
DOTHAN RCO 122.2 122.5
EUFAULA VORTAC 109.2T 122.1R
GADSDEN VOR/DME 112.3T 122.1R
HAMILTON RCO 122.3
HUNTSVILLE RCO 122.2
MOBILE RCO 122.2 123.65
MONROEVILLE VORTAC 116.8T 122.1R
MONTGOMERY VORTAC 112.1T 122.1R 122.2 122.55
MUSCLE SHOALS RCO 122.2 122.4
SELMA RCO 122.4
TALLADEGA VOR/DME 108.8T 122.05R
TUSCALOOSA RCO 122.2
TUSKEGEE VOR/DME 117.3T 122.1R
VULCAN VORTAC 114.4T 122.1R
WIREGRASS VORTAC 111.6T 122.1R

GAINESVILLE AFSS 122.1R 122.2 122.5 123.65

CRAIG VORTAC 114.5T 122.1R 122.2 122.45
CRESTVIEW RCO 122.0 122.2 122.45
CROSS CITY VORTAC 112.0T 122.1R
GATORS VORTAC 116.2T 122.1R
GREENVILLE VORTAC 109.0T 122.1R
LAKE CITY RCO 122.6
MARIANNA VORTAC 114.0T 122.1R
OCALA VORTAC 113.7T 122.1R
PALATKA RCO 122.25
PANAMA CITY VORTAC 114.3T 122.1R
PENSACOLA RCO 122.2 122.6
PERRY RCO 122.45
ST AUGUSTINE RCO 122.3
SAUFLEY VOR 108.8T 122.1R
SEMINOLE VORTAC 117.5T 122.1R 122.2 122.4
TAYLOR VORTAC 112.9T 122.1R

JACKSON AFSS

CLARKSVILLE VOR/DME 110.6T 122.1R
DYERSBURG RCO 122.2 122.45
GRAHAM VORTAC 111.6T 122.1R 122.25
JACKS CREEK VOR/DME 109.4T 122.1R
JACKSON RCO 122.2 **122.65** 127.15
MEMPHIS VORTAC 117.5T 122.1R 122.2 123.65

LOUISVILLE AFSS

BOWLING GREEN RCO 122.2 122.4
CENTRAL CITY VORTAC 109.8T 122.1R
CINCINNATI VORTAC 117.3T 122.1R
FALMOUTH VOR/DME 117.0T 122.1R
FRANKFORT VOR 109.4T 122.1R
HAZARD VOR/DME 111.2T 122.1R
LEXINGTON VORTAC 112.6T 122.1R
LONDON VORTAC 116.1T 122.1R 122.2 122.65
LOUISVILLE RCO 122.1R 122.2 **122.45**
MADISON RCO 122.3
NEW HOPE VOR/DME 110.8T 122.1R
NEWCOMBE VORTAC 110.4T 122.1R
OWENSBORO VOR/DME 108.6T 122.1R
PADUCAH RCO 122.2 122.5
PIKEVILLE RCO 122.05
SOMERSET RCO 122.55
YORK VORTAC 112.8T 122.1R

MACON AFSS

ALBANY RCO 122.6
ALMA VORTAC 115.1T 122.1R 123.6
ATHENS VORTAC 109.6T 122.1R
ATLANTA VORTAC 116.9T 122.1R 122.2 122.6
BRUNSWICK VORTAC 109.8T 122.1R 122.2
CHOO CHOO VORTAC 115.8T 122.1R
COLUMBUS VORTAC 117.1T 122.1R 122.65
DANIEL RCO 122.3
DUBLIN VORTAC 113.1T 122.1R 122.6
GAINESVILLE RCO 122.55
HARRIS RCO 122.35
LAGRANGE VORTAC 115.6T 122.1R
MACON RCO 122.1R 122.2 122.4
MOULTRIE VOR/DME 108.8T 122.1R
PEACHTREE VOR/DME 116.6T 122.1R
ROME RCO 122.3
SAVANNAH VORTAC 115.95T 122.1R 123.65
STATESBORO RCO 122.6
THOMASVILLE RCO 122.55
TIFT MYERS RCO 122.35
VALDOSTA VOR/DME 114.8T 122.1R 122.2
VIENNA VORTAC 116.5T 122.1R
WAYCROSS VORTAC 110.2T 122.1R

MIAMI AFSS 122.2 122.3 **122.55** 123.65
MIAMI IFSS 127.9 126.9 126.7

DADE COLLIER RCO 122.3
DAVIE RCO 126.7
DOLPHIN VORTAC 113.9T 122.1R
FORT MYERS RCO 122.1R 122.2 **122.65**
FORT PIERCE RCO 122.55
KEY WEST VORTAC 113.5T 122.1R 122.2 **123.65**
LA BELLE VORTAC 110.4T 122.1R
MARATHON RCO 122.6
NAPLES RCO 123.6
PAHOKEE VORTAC 115.4T 122.1R 122.35
PALM BEACH VORTAC 115.7T 122.1R 122.4
VIRGINIA KEY VOR/DME 117.1T 122.1R

NASHVILLE AFSS

BRISTOL RCO 122.2
CHATTANOOGA RCO 122.2 123.65
CROSSVILLE RCO 122.2 122.5
HINCH MOUNTAIN VORTAC 117.6T 122.1R
HOLSTON MOUNTAIN VORTAC 114.6T 122.1R
LIVINGSTON VORTAC 108.4T 122.1R
MCGHEE TYSON RCO 122.2 122.3
NASHVILLE RCO 114.1T 122.1R 122.2 122.55
SHELBYVILLE VOR/DME 109.0T 122.1R
VOLUNTEER VORTAC 116.4T 122.1R

RALEIGH AFSS

BARRETTS MOUNTAIN VOR/DME 110.8T 122.1R
CHARLOTTE RCO 122.4
COFIELD VORTAC 114.6T 122.1R
ELIZABETH CITY VOR/DME 112.5T 122.05R 122.2
FAYETTEVILLE VOR/DME 108.8T 122.1R
GREENSBORO VORTAC 116.2T 122.1R 122.2 123.65
HATTERAS RCO 122.3
HICKORY RCO 122.2 122.6
KINSTON VORTAC 109.6T 122.15R
LIBERTY VORTAC 113.0T 122.1R
NEW BERN VOR/DME 113.6T 122.1R 122.2 122.4
PITT–GREENVILLE RCO 122.35
RALEIGH RCO 122.2 122.45 122.65
ROCKY MOUNT RCO 122.2 122.3
SANDHILLS VORTAC 111.8T 122.1R
SNOWBIRD VORTAC 108.8T 122.1R
SUGARLOAF MOUNTAIN VORTAC 112.2T 122.1R 122.2 122.3
TAR RIVER VORTAC 117.8T 122.1R
WILKESBORO RCO 122.4
WILMINGTON VORTAC 117.0T 122.1R 122.55

SAINT PETERSBURG AFSS

BROOKSVILLE RCO 122.3
FORT DRUM RCO 122.2
LAKELAND VORTAC 116.0T 122.1R
MELBOURNE VOR/DME 110.0T 122.1R 122.6
ORLANDO VORTAC 112.2T 122.1R 122.2 **122.65** 123.65
ORMOND BEACH VORTAC 112.6T 122.1R 122.4
PUNTA GORDA RCO 122.025
ST PETERSBURG VORTAC 116.4T 122.1R 122.2 122.45 123.6
SARASOTA VORTAC 115.2T 122.1R
SEBRING RCO 122.25
TITUSVILLE RCO 123.6
VERO BEACH VORTAC 117.3T 122.1R 122.2 122.5

SAN JUAN AIFSS

BORINQUEN VORTAC 113.5T 122.1R
MAYAGUEZ VOR/DME 110.6T 122.1R
PONCE VOR/DME 109.0T 122.1R
ST CROIX VOR/DME 108.2T 122.1R
ST THOMAS VOR/DME 108.6T 123.6R
SAN JUAN RCO 126.7 123.65 122.2

FLIGHT STANDARDS DISTRICT OFFICES (FSDO)

Below is a list of FSDO's in the area of coverage of this directory. These offices serve the aviation industry and the general public on matters relating to certification and operation of general aviation aircraft. Address letters to Manager, Flight Standards District Office–Federal Aviation Administration.

ALABAMA

Liberty Park Building 1500, Suite 250
1500 Urban Center Drive
Vestavia Hills, AL 35242
Telephone: 205–731–1557

FLORIDA

Ft. Lauderdale Jet Center
1050 Lee Wagener Blvd.
Ft. Lauderdale, FL 33315
Telephone: 954–635–1300

5950 Hazeltine
National Drive Suite 500
Orlando, FL 32822–5023
Telephone: 407–812–7700
Fax: 407–812–7710

8600 NW 36th Street
Miami, FL 33166
Telephone: 305–716–3400

5601 Mariner St, Suite 310
Tampa, FL 33609
Telephone: 813–287–4900
Fax: 813–639–1551

GEORGIA

Campus Building
1701 Columbia Ave. Suite 2–110
College Park, GA 30337–2748
Telephone: 404–305–7200
Fax: 404–305–7215

KENTUCKY

1930 Bishop Lane
Waterson Towers, 11th Floor
Louisville, KY 40218
Telephone: 502–753–4200

NORTH CAROLINA

6433 Bryan Blvd.
Greensboro, NC 27409
Telephone: 336–662–1000

3800 Arco Corporate Drive, Suite 233
Charlotte, NC 28273
Telephone: 704–319–7020

PUERTO RICO

525 F.D. Roosevelt Ave.
La Torre de Plaza, Suite 901
San Juan, PR 00918
Telephone: 787–764–2538

SOUTH CAROLINA

125–B Summer Lake Drive
West Columbia, SC 29170
Telephone: 803–765–5931

TENNESSEE

2 International Plaza Drive, Suite 700
Nashville, TN 37217
Telephone: 615–324–1300

2842 Business Park Drive, Bldg G
Memphis, TN 38118
Telephone: 901–322–8600

PREFERRED IFR ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred IFR routes which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic service.

The following lists contain preferred IFR routes for the low altitude stratum and the high altitude stratum. The high altitude list is in two sections; the first section showing terminal to terminal routes and the second section showing single direction route segments. Also, on some high altitude routes low altitude airways are included as transition routes.

The following will explain the terms/abbreviations used in the listing:

1. Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flight are normally cleared directly on the airway.

2. Preferred IFR routes beginning/ending with a fix indicate that aircraft may be routed to/from these fixes via a Standard Instrument Departure (SID) route, radar vectors (RV), or a Standard Terminal Arrival Route (STAR).

3. Preferred IFR routes for major terminals selected are listed alphabetically under the name of the departure airport. Where several airports are in proximity they are listed under the principal airport and categorized as a metropolitan area; e.g., New York Metro Area.

4. Preferred IFR routes used in one direction only for selected segments, irrespective of point of departure or destination, are listed numerically showing the segment fixes and the direction and times effective.

5. Where more than one route is listed the routes have equal priority for use.

6. Official location identifiers are used in the route description for VOR/VORTAC navaids.

7. Intersection names are spelled out.

8. Navaid radial and distance fixes (e.g., ARD201113) have been used in the route description in an expediency and intersection names will be assigned as soon as routine processing can be accomplished. Navaid radial (no distance stated) may be used to describe a route to intercept a specified airway (e.g., MIV MIV101 V39); another navaid radial (e.g., UIM UIM255 GSW081); or an intersection (e.g., GSW081 FITCH).

9. Where two navaids, an intersection and a navaid, a navaid and a navaid radial and distance point, or any navigable combination of these route descriptions follow in succession, the route is direct.

10. The effective times for the routes are in UTC. During periods of daylight saving time effective times will be one hour earlier than indicated. All states observe daylight saving time except Arizona, Puerto Rico and the Virgin Islands. Pilots planning flight between the terminals or route segments listed should file for the appropriate preferred IFR route.

11. (90–170 incl) altitude flight level assignment in hundred of feet.

12. The notations ''pressurized'' and ''unpressurized'' for certain low altitude preferred routes to Kennedy Airport indicate the preferred route based on aircraft performance.

13. High Altitude Preferred IFR Routes are in effect during the following time periods unless otherwise noted.

Sun..... 1300–2259 local time.
Mon thru Fri 0701–2259 local time.
Sat 0701–1459 local time.

14. Use current SIDs and STARSs for flight planning.

15. For high altitude routes, the portion of the routes contained in brackets is suggested but optional. The portion of the route outside the brackets will likely be required by the facilities involved.

LOW ALTITUDE

Terminals	Route	Effective Times (UTC)
ATLANTA METRO AREA		
Chicago Midway (MDW)	(60–170 incl) V97 NELLO V311 HCH V51 CGT	1200–0300
Chicago O'Hare (ORD)	(60–170 incl) V97 NELLO V311 HCH V51 CGT V7 BEBEE	1200–0300
Cincinnati (CVG)	(80–170 incl) V97 VXV V115 AZQ V339 FLM	1200–0300
CINCINNATI METRO AREA (CVG, LUK)		
Detroit/Wayne (DTW)	DQN MIZAR–STAR or (RNAV only) HAGOL (RNAV)–DP DQN MIZAR–STAR	1100–0300 1100–0300
Detroit Satellites:		
Ann Arbor (ARB)	DQN CRUXX–STAR or (RNAV only) HAGOL (RNAV)–DP DQN CRUXX–STAR	1100–0300 1100–0300
Pontiac (PTK),	or (RNAV only) HAGOL (RNAV)–DP DQN CRUXX–STAR	

Terminals	Route	Effective Times (UTC)
Willow Run (YIP)	(all others) DQN CRUXX–STAR	
	or	
	(RNAV only) HAGOL (RNAV)–DP DQN CRUXX–STAR	
Windsor (CYQG),	or	
	(all others) (RNAV only) HAGOL (RNAV)–DP DQN V272 KLINE VXV VXV064 LYNTN	
Young (DET)	V275 KLINE VWV VWV064 LYNTN	
	or	
	(RNAV only) HAGOL (RNAV)–DP DQN V275 KLINE VXV VXV 064 LYNTN	
From COVINGTON (CVG) only		
Atlanta (ATL)	BLUEGRASS–DP HYK V97 VXV V267 HRS V463 WOMAC	1100–0300
Chicago Midway (MDW)	V128 VHP BVT V97 CGT	1100–0300
Chicago O'Hare (ORD)	V128 VHP BVT V97 CGT V7 BEBEE	1100–0300
Indianapolis (IND)	V128 VHP	1100–0300
Knoxville (TYS)	(all others) BLUEGRASS–DP HYK V97	
	or	
	(RNAV only) KENLIN (RNAV)–DP HYK V97	
Louisville (SDF)	CVG206 IIU055 IIU	1100–0300
Pittsburgh (PIT)	(60–170 incl) (all others) RHOMM–DP YRK V44 JPU V117 WISKE WISKE–STAR	1100–0300
	or	
	(60–170) (RNAV only) GIPLE (RNAV)–DP YRK V44 JPU V117 WISKE WISKE–STAR	1100–0300
DAYTONA BEACH		
Miami (MIA)	(110 and below) V3 MLB V437 PHK V267 BRIKL	1300–0300
FT LAUDERDALE METRO AREA (FLL, FXE, PMP)		
Cross City (CTY)	(at or below 50) DHP V97 LBV V157 LAL V7	1030–0300
	or	
	(60–170) V511 LAL V7	1030–0300
Daytona Beach (DAB)	(at or below 100) PBI V3 SMYRA	1030–0300
	or	
	(110–170) V159 TBIRD MLB V3	1030–0300
Ft. Myers (FMY)(RSW)	(at or below 50) DHP V521	1030–0300
Ft. Pierce (FPR)	(at or below 100) V3	1030–0300
	or	
	(110–170) V159 TBIRD	1030–0300
Gainesville (GNV)	(at or below 50) DHP V97 LBV V157	1030–0300
	or	
	(60–170) V511 LAL V157	1030–0300
Jacksonville (JAX)	(at or below 90) PBI V3 OMN V51 CRG	1030–0300
	or	
	(130–170) ORL V267 CRG	1030–0300
	or	
	V159 VRB V3 OMN V51 CRG	
Lakeland (LAL)	(at or below 50) DHP V97 LBV110 V157	1030–0300
	or	
	(60–170) V511	1030–0300
Melbourne (MLB)	(at or below 100) V3	1030–0300
	or	
	(110–170) FLL V159 TBIRD	1030–0300
Ocala (OCF)	(at or below 50) DHP V97 LBV V157	1030–0300
	or	
	(60–170) V511 LAL V157	1030–0300
Orlando (MCO)	(at or below 100) PBI V531 ORL	1030–0300
	or	
	(110–170) V159 TBIRD V531 ORL	1030–0300

Terminals	Route	Effective Times (UTC)
Sarasota/Bradenton (SRQ)	(60–170) LBV V97 ROGAN	1030–0300
	or	
	(60–170) SRQ	1030–3000
	or	
	(at or below 50) DHP V97 ROGAN	1030–0300
	or	
	(60–170) ROGAN	1030–0300
Tallahassee (TLH)	(at or below 50) DHP V97 LBV V157 LAL V7 SZW	1030–0300
	or	
	(60–170) V511 LAL V7 SZW	1030–0300
Tampa (TPA)	(60–170) LBV BRDGE–STAR	1030–0300
	or	
	(60–170) BRDGE BRDGE–STAR	1030–0300
	or	
	(at or below 50) DHP V97 PIE	1030–0300
	or	
	(60–170, GPS or DME/DME–IRU equipped) DEAKK DEAKK (RNAV)–STAR	1030–0300
	or	
	(60–170, GPS or DME/DME–IRU equipped) LBV DEAKK (RNAV)–STAR	1030–0300
Vero Beach (VRB)	(at or below 100) V3	1030–0300
	or	
	(110–170) V159 TBIRD	1030–0300
FORT MYERS METRO AREA (RSW, FMY, APF, MKY, PGD)		
Daytona Beach (DAB)	ORL	1030–0300
Ft. Lauderdale (FLL)	(RSW/FMY/PGD–prop/turbo) RSW V599	1030–0300
	or	
	(RSW/FMY/PGD–turbo/jets) FORTL JINGL (RNAV)–STAR	1030–0300
	or	
	(APF/MKY prop/turbo) DRCT	1030–0300
	or	
	FORTL JINGL (RNAV)– STAR	1030–0300
Ft. Pierce (FPR)	V225	1030–0300
Gainesville (GNV)	V7 LAL V157	1030–0300
Jacksonville (JAX)	ORL V267 CRG	1030–0300
Lakeland (LAL)	V7 LAL	1030–0300
Melbourne (MLB)	V225 VRB	1030–0300
Miami (MIA)	V35 CURVE	1030–0300
	or	
	(all others) CYY CYY–STAR	1030–0300
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) CYY SSCOT (RNAV)–STAR	
Orlando (MCO)	(Jets) LAL ORL	1030–0300
	or	
	(Turbo/Props) ORL	1030–0300
	or	
	(Jets) LAL MINEE–STAR	1030–0300
	or	
	(Jets) DOWNN MINEE–STAR	1030–0300
	or	
	(Turbo/Props) DOWNN MINEE–STAR	1030–0300
Ocala (OCF)	V7 LAL V157	1030–0300
Tallahassee (TLH)	V7 SZW	1030–0300
Tampa (TPA)	(at or below 100) V35 PIE	1030–0300
	or	
	(110–170) RSW BRDGE–STAR	1030–0300
	or	
	(GPS or DME/DME–IRU equipped) DEAKK (RNAV)–STAR	1030–0300
Vero Beach (VRB)	V225	1030–0300

Terminals	Route	Effective Times (UTC)
GAINESVILLE (GNV)		
Ft. Lauderdale (FLL)	(100 and below) V157 NEWER	0000–2359
Ft. Myers (FMY)	(100 and below) V157 LAL V521	0000–2359
Miami (MIA)	(100 and below) V157 LBV V529 V35 CURVE	0000–2359
Orlando (ORL)	(100 and below) V157 OCF V159	1100–0400
Sarasota/Bradenton (SRQ)	(100 and below) V157 LAL	0000–2359
Tampa (TPA)	(100 and below) V157 OCF V581 DADES	0000–2359
JACKSONVILLE METRO AREA (JAX)		
Miami (MIA)	(100 and below) V3 MLB V437 PHK V267 BRIKL	1300–0300
Tampa (TPA)	(100 and below) OCF V581 DADES	0000–2359
	or	
	(100 and below, GPS or DME/DME–IRU equipped) OCF V581 DADES (RNAV)–STAR	0000–2359
KEY WEST METRO AREA (NQX)		
Daytona Beach (DAB)	RSW ORL	1030–0300
Ft Myers (RSW)	EYW	1030–0300
Fort Lauderdale (FLL)	(props) EYW V157 DHP	
	or	
	(jets-all others) EYW DVALL–STAR	1030–0300
	or	
	(jets-/E,/G,/R,/J,/L,/Q) EYW CURSO (RNAV)–STAR	1030–0300
Melbourne (MLB)	EYW PHK	1030–0300
Miami (MIA)	(props) EYW V157	
	or	
	(Jets-all others) EYW DVALL–STAR	1030–0300
	or	
	(Jets-/E,/G,/R,/J,/L,/Q) EYW CURSO (RNAV)–STAR	1030–0300
Orlando (MCO)	(props) EYW RSW MINEE–STAR	
	or	
	(Jets) EYW RSW MINEE–STAR	1030–0300
Palm Beach (PBI)	EYW PHK	1030–0300
Sarasota/Bradenton (SRQ)	(at or below 100) EYW RSW V35 MURDO	1030–0300
	or	
	(110–170) EYW RSW V7 ROGAN	
Tallahassee (TLH)	EYW RSW V7 SZW	1030–0300
Tampa (TPA)	(at or below 100) EYW RSW V35 PIE	
	or	
	(110–170) EYW RSW V7 BRDGE–STAR	1030–0300
	or	
	(110–170, GPS or DME/DME–IRU equipped) EYW V225 RSW V7 ROGAN DEAKK (RNAV)–STAR	1030–0300
Vero Beach (VRB)	EYW PHK V51	1030–0300
LAKELAND METRO AREA (LAL, GIF, BOW, BKV, X16)		
Ft Lauderdale (FLL)	(Jets only–all others) V7 RSW FORTL–STAR	1030–0300
Ft. Myers (FMY)	V521	1030–0300
Ft Pierce (FPR)	(at or below 140) V441 DEARY V159	1030–0300
	or	
	(150–170) VRB	1030–0300
Key West (EYW)	V7 RSW V225	1030–0300
Miami (MIA)	(100 and below) V157 LBV V529 V35 CURVE	
	or	
	(all others) CYY CYY–STAR	1030–0300
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) CYY SSCOT (RNAV)–STAR	
Opa Locka (OPF)	(props/turbo) V511 NEWER	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) RSW CYY SSCOT (RNAV)–STAR	
Vero Beach (VRB)	(at or below 140) V441 DEARY V159	1030–0300
	or	
	(150–170) VRB	1030–0300
West Palm Beach (PBI)	PHK	1030–0300

Terminals	Route	Effective Times (UTC)
LEXINGTON (LEX)		
Atlanta (ATL)	HYK V53 AZQ SOT WHINZ–STAR	
LOUISVILLE		
Kansas City (MKC)	V4 PXV V190 SGF TYGER–STAR	0000–2359
Wichita (ICT)	V4 PXV V190 SGF V132 CNU V350	0000–2359
MEMPHIS		
Chicago Midway (MDW)	SPI MOTIF–STAR	0000–2359
Chicago O'Hare (ORD)	MAW V313 PNT V227 PLANO	1100–0300
	or	
	PNT V227 PLANO	0000–2359
MIAMI METRO AREA (MIA, HWO, OPF, TMB, HST, X51)		
Cross City (CTY)	V97 LBV V157 LAL V7	1030–0300
	or	
	LAL	1030–0300
Daytona Beach (DAB)	(at or below 100) PBI V3 SMYRA	1030–0300
	or	
	(110–170) V437 MLB V3	1030–0300
Ft Pierce (FPR)	(at or below 100) PBI V3	1030–0300
	or	
	(110–170) V267 PHK V51 VRB	1030–0300
	or	
	FPR	
Gainesville (GNV)	V97 LBV V157	1030–0300
	or	
	LAL	1030–0300
Jacksonville (JAX)	(at or below 90) PBI V3 OMN V51 CRG	1030–0300
	or	
	(at 110) PHK V437 MLB V3 OMN V51 CRG	1030–0300
	or	
	(130–170) V267 CRG	1030–0300
Lakeland (LAL)	V97 LBV V157 LAL	1030–0300
	or	
	LAL	1030–0300
Melbourne (MLB)	(at or below 100) V3	1030–0300
	or	
	(120–170) PBI V531 TBIRD	1030–0300
New Orleans (MSY)	(below FL180) LBV SRQ AM	1100–0300
Ocala (OCF)	DHP V97 LBV V157	1030–0300
	or	
	LAL	1030–0300
Orlando (MCO)	(at or below 100) PBI V531 ORL	
	or	
	(110–170) V267 PHK GOOFY–STAR	1030–0300
Overwater Routes to the Northeast	PERMT ILM or PERMT DIW	
Sarasota/Bradenton (SRQ)	V97 ROGAN	1030–0300
Tallahassee (TLH)	DHP V97 LBV V157 LAL V7 SZW	1030–0300
Tampa (TPA)	V97 LBV BRDGE–STAR	1030–0300
	or	
	(GPS or DME/DME–IRU equipped) V97 LBV DEAKK	1030–0300
Vero Beach (VRB)	(at or below 100) PBI V3	1030–0300
	or	
	(110–170) V267 PHK V51	1030–0300
	or	
	(110–170) VRB	1030–0300
NASHVILLE		
Tallahassee (TLH)	RQZ TDG TGE RRS	1100–2300
ORLANDO METRO AREA (MCO, ORL, ISM, LEE, SFB)		
Ft Lauderdale (FLL)	(at or below 100) PHK V267 BRIKL	1030–0300
	or	
	(110–170) PHK V267 BRIKL	1030–0300
Ft Pierce (FPR)	V159 VRB	1030–0300
Key West (EYW)	RSW V225	1030–0300
Miami (MIA)	(at or below 100) PHK V267 BRIKL	1030–0300

Terminals	Route	Effective Times (UTC)
West Palm Beach (PBI)	(props/turbo props) V159 VRB V295 STOOP V492	1030–0300
	or	
	(Jets only) PHK	1030–0300
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) DEARY VRB FRWAY (RNAV)–STAR	
PALM BEACH METRO AREA (PBI, BCT, LNA, UTX, SUA)		
Cross City (CTY)	(at or below 140) V531 BAIRN OCF V159	
	or	
	(150–170) LAL V7	1030–0300
Daytona Beach (DAB)	V3 SMYRA	1030–0300
	or	
	V531 TBIRD MLB V3 SMYRA	1030–0300
Ft. Myers (RSW)	RSW	1030–0300
Jacksonville (JAX)	(at or below 110) V3 VRB V51 CRG	
	or	
	(130–170) ORL V267 CRG	1030–0300
Lakeland (LAL)	LBV V157	1030–0300
	or	
	(SUA Dep) LAL	
Melbourne (MLB)	(at or below 100) V3	
	or	
	(120–170) PBI V531 TBIRD	1030–0300
Ocala (OCF)	(at or below 140) V531 BAIRN OCF	
	or	
	(150–170) LAL OCF	
Orlando (ORL/MCO)	V531 BAIRN GOOFY–STAR	1030–0300
Overwater Routes to the Northeast	A699 STIFF AR7	
Sarasota/Bradenton (SRQ)	LBV V97 ROGAN	
	or	
	(SUA Dep) SRQ	
Tallahassee (TLH)	(at or below 140) V531 BAIRN OCF V159 CTY V7 SZW	
	or	
	(150–170) LAL V7 SZW	1030–0300
Tampa (TPA)	LBV BRDGE–STAR	
	or	
	BRDGE BRDGE–STAR	1030–0300
	or	
	(GPS or DME/DME–IRU equipped) DEAKK DEAKK (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) LBV DEAKK (RNAV)–STAR	1000–0300
Vero Beach (VRB)	(at or below 100) PBI V3	
	or	
	(110–170) V531 TBIRD	1030–0300
From STUART (SUA) only:		
Cross City (CTY)	(at or below 120) BAIRN OCF V159	
	or	
	(130–170) LAL V7	1030–0300
Lakeland (LAL)	TBIRD V531 ODDEL V441 LAL	1030–0300
Ocala (OCF)	TBIRD V531 BAIRN	1030–0300
Tallahassee (TLH)	(at or below 120) BAIRN OCF V159 CTY V7 SZW	
	or	
	(130–170) LAL V7 SZW	1030–0300

Terminals	Route	Effective Times (UTC)
SARASOTA/BRADENTON AREA (SRQ)		
Ft Lauderdale (FLL)	(at or below 100, below 210 kts) RSW V599 NEWER	
	or	
	(110–170), below 210 kts) LBV V157 NEWER	
	or	
	(at or above 210 kts) V579 RSW V7 KUBIC	
	or	
	(all others) RSW FORTL–STAR	1030–0300
	or	
	(/E, /G, /R, /J, /L, /Q) RXXAN JINGL (RNAV)–STAR	
Ft Myers (RSW)	V579 RSW	1030–0300
Orlando (MCO)	LAL MINEE–STAR	1030–0300
West Palm Beach (PBI)	SABEE JOOOE WLACE (RNAV)–STAR	
TALLAHASSEE AND CROSS CITY AREA		
Ft Myers (FMY)	(120 and below) CTY V7 LAL V521	1100–0300
Miami (MIA)	(170 and below) LAL V157 LBV V529 V35 CURVE	1300–0300
TAMPA/ST PETERSBURG METRO AREA (TPA, SPG, PIE, TPF)		
Ft Lauderdale (FLL)	(Jets only) RSW V7 KUBIC FLL	
	or	
	(all others) RSW FORTL–STAR	
	or	
	(Turboprop–all others) RSW FORTL–STAR	1030–0300
	or	
	(props only) V509 HALLR V511 NEWER	1030–0300
	or	
	(GPS or DME/DME–IRU equipped) SABEE RXXAN JINGL (RNAV)–STAR	
Ft Myers (RSW)	PIE V579 RSW	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) SRQ TYNEE (RNAV)–STAR	
Ft Pierce (FPR)	(at or below 140) V441 DEARY V159	
	or	
	(150–170) VRB	1030–0300
Key West (EYW)	PIE V35 RSW V225	
	or	
	V579 RSW V225	1030–0300
Miami (MIA)	RSW V35 CURVE	1030–0300
	or	
	(all others) CYY CYY–STAR	1030–0300
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) CYY SSCOT (RNAV)–STAR	
Opa Locka (OPF)	(props) V509 HALLR V511 NEWER	
	or	
	(turbo) RSW V7 KUBIC	
	or	
	(turbo) V509 HALLR V511 NEWER	1030–0300
	or	
	(jets) RSW CYY CYY–STAR	1030–0300
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) RSW CYY SSCOT (RNAV)–STAR	
Orlando (MCO)	LAL MINEE–STAR (Max alt. 12,000 ft)	1030–0300
Vero Beach (VRB)	(at or below 140) V441 DEARY V159	
	or	
	(150–170) VRB	1030–0300
West Palm Beach (PBI)	RSW PHK	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) SABEE JOOOE WLACE (RNAV)–STAR	

SPECIAL LOW ALTITUDE ARRIVAL ROUTES FOR ATLANTA TERMINAL AREA (JETS AND TURBOPROPS)

NORTHEAST

Traffic entering ZTL airspace V97 and East to V66 file:

- VXV AWSON–STAR
- SOT ODF AWSON–STAR
- SUG ODF AWSON–STAR
- SPA ODF AWSON–STAR
- ELW ODF AWSON–STAR

SOUTHEAST

Traffic entering ZTL airspace South of V66 to East of a line from ATL to MGR file:

- IRQ TRBOW–STAR
- DBN TRBOW–STAR
- MCN TRBOW–STAR

SOUTHWEST

Traffic entering ZTL airspace South of V278 to West of a line from ATL to MGR file:

- LDK V66 LGC MIKEE–STAR
- MEI V56 MGM LGC MIKEE–STAR
- MVC MGM LGC MIKEE–STAR
- CEW MGM LGC MIKEE–STAR
- SZW PZD CSG LGC MIKEE–STAR

NORTHWEST

Traffic entering ZTL airspace on V278 and North to West of V97 file:

- IGB V278 VUZ V417 MAYES V325 DALAS
- HAB V159 VUZ V417 MAYES V325 DALAS
- MSL V325 DALAS
- DCU V541 GAD V325 DALAS
- RQZ BUNNI–STAR
- BNA V5 GQO BUNNI–STAR
- SYI V67 GQO BUNNI–STAR
- BWG V243 GQO BUNNI–STAR
- LVT V51 HCH V333 GQO BUNNI–STAR
- HYK V333 GQO BUNNI–STAR

SPECIAL LOW ALTITUDE DIRECTIONAL ROUTES

Route	Effective Times (UTC)
Low Altitude IFR routes for traffic overflying the Charlotte Metro Area:	
PSK V37 CAE (90 and 100 only)	1100–0300
SPA V54 LOCAS (90 and 100 only)	1100–0300
GRD V66 SDZ (30–100 only)	1100–0300

HIGH ALTITUDE

Terminals	Route	Effective Times (UTC)
ATLANTA (ATL)		
Austin (AUS)	WEONE J239 MEI AEX LFK	1100–0300
Baltimore (BWI)	EAONE SPA J14 RIC OTT–STAR	1100–0300
Boca Raton (BCT)	(GPS or DME/DME–IRU equipped) BRAVS (RNAV)–DP WALET OTK PRRIE (RNAV)–STAR	1100–0300
Boston (BOS)	EATWO GRD J209 RDU J207 FKN J79 JFK ORW–STAR	1100–0300
Chicago Midway (MDW)	(/E/G/R/S/L/Q only) NOONE J89 IIU OKK FISSK (RNAV)–STAR	1100–0300
	or	
	(Non-Advanced RNAV only) NOONE J89 IIU OKK V285 CLEFT OXI CGT	1100–0300

Terminals	Route	Effective Times (UTC)
Chicago O'Hare (ORD)	(non-Advanced RNAV only) CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX–STAR	1100–0300
	or	
	(/E/G/R/J/L/Q only) CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)–STAR	1100–0300
	or	
	J89 IIU MZZ OXI	
Cincinnati (CVG)	NOTWO J43 VXV HARDU–STAR	1100–0300
Charlotte (CLT)	GRD ADENA (RNAV–STAR)	1100–0300
Cleveland (CLE)	SUMMT (RNAV)–DP VXV J91 BULEY J91 HNN TVT KEATN–STAR	
Columbus (CMH)	NOTWO J43 VXV J91 HNN BREMN–STAR	1100–0300
Denver (DEN)	WETWO VUZ J41 MEM RZC PER GCK J154 RYLIE DANDD–STAR	1100–0300
Detroit/Wayne (DTW)	SUMMT (RNAV)–DP VXV J91 HNN WEEDA–STAR	
Eglin AFB (KVPS)	NOVSS (RNAV) DP SARGE RRS CEW	
Fort Lauderdale (FLL)	SOONE J89 HITTR PIE FORTL–STAR	1100–0300
	or	
	(GPS or DME/DME–IRU equipped) BRAVS (RNAV)–DP WALET OTK JINGL (RNAV)–STAR	1100–0300
Fort Myers (FMY and RSW)	(Turbojets–GPS or DME/DME–IRU equipped) THRSR (RNAV)–DP LUCKK SZW TYNEE (RNAV)–STAR	1100–0300
Gainesville (GNV)	SOONE J89 OTK	1100–0300
Houston (HOU)	(DME/DME–IRU or GPS–equipped) JAMMR AEX ROKIT (RNAV)–STAR	
	or	
	(Non–advanced NAV only) JAMMR MEI AEX DAS–STAR	
Houston (IAH)	(Turbojets–DME/DME–IRU or GPS–equipped) JAMMR AEX TXMEX (RNAV)–STAR	
Kennedy (JFK)	EATWO GRD J209 ORF J121 SIE CAMRN–STAR	1100–0300
La Guardia (LGA)	EAONE AHN J208 HPW J191 PXT KORRY–STAR	1100–0300
Louisville (SDF)	NOONE HCH DARBY–STAR	1100–0300
Marco Island (MKY)	SOTWO J43 SZW PIKKR (RNAV)–STAR	
	or	
	SOONE J89 J75 TEPEE ZEILR–STAR	
Miami (MIA)	(all others) SOTWO SZW J43 PIE CYY–STAR	1100–0300
	or	
	(Turbojets–GPS or DME/DME equipped) THRSR (RNAV)–DP LUCKK SZW SSCOT (RNAV)–STAR	1100–0300
Minneapolis (MSP)	NOONE J89 IIU J89 BAE EAU–STAR	1100–0300
Naples (APF)	SOTWO J43 SZW PIKKR (RNAV)–STAR	
Newark (EWR)	GSO J14 J51 FAK DYLIN–STAR	1100–0200
	or	
	(GPS or DME/DME–IRU equipped) GSO J14 J51 FAK PHLBO (RNAV)–STAR	1100–0200
Orlando (MCO)	SOONE J89 OTK LEESE–STAR	1100–0300
	or	
	(GPS or DME/DME–IRU equipped) SOONE J89 OTK PIGLT (RNAV)–STAR	1100–0400
Orlando (ORL)	(GPS or DME/DME–IRU equipped) SOONE J89 OTK PIGLT (RNAV)–STAR	1100–0400
Panama City–Bay Co Intl (PFN)	NOVSS (RNAV) DP SARGE	
Pensacola Rgnl (PNS)	NOVSS (RNAV) DP SARGE	
Philadelphia (PHL)	EAONE SPA J14 J51 FAK DPNT–STAR	1100–0300
Raleigh–Durham (RDU)	EATWO IRQ CAE BUZZY–STAR	1100–0300
Sarasota/Bradenton (SRQ)	J43 SZW CLAMP–STAR	1100–0300
Tampa (TPA)	SOTWO J43 SZW DARBS–STAR	1100–0300
	or	
	(GPS or DME/DME–IRU equipped) SOTWO J43 SZW FOXXX (RNAV)–STAR	1100–0300

Terminals	Route	Effective Times (UTC)
Teterboro (TEB)	(Advanced Nav Only) EAONE SPA J14 J51 FAK JAIKE–STAR	1100–0300
	or	
	(Non–Advanced Nav Only) EAONE SPA J14 J51 FAK BRV AML J227 J49 J70 LVZ LVZ–STAR	1100–0300
Washington Natl (DCA)	(GPS or DME/DME–IRU equipped) EAONE SPA J14 RIC OJAAY (RNAV)–STAR	1100–0300
	or	
	EAONE SPA J14 RIC IRONS–STAR	
West Palm Beach (PBI)	(Turbojets–GPS or DME/DME–IRU equipped) BRAVS (RNAV)–DP WALET OTK WLACE (RNAV)–STAR	1100–0300
Windsor Locks (BDL)	EATWO GRD J209 RDU J207 FKN J79 JFK DPK DPK–STAR	1100–0300
AUGUSTA (AGS)		
Kennedy (JFK)	GRD J209 ORF J121 SIE CAMRN–STAR	
BIRMINGHAM (BHM)		
Baltimore (BWI)	ATL J14 RIC OTT–STAR	
	or	
	(GPS or DME/DME–IRU equipped) ATL J14 RIC RAVNN (RNAV)–STAR	
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) VUZ IIU OKK FISSK (RNAV)–STAR	1100–0300
	or	
	(non–advanced RNAV only) VUZ IIU OKK V285 CLEFT OXI CGT	1100–0300
Chicago O'Hare (ORD)	MEM FTZ BDF BDF–STAR	0000–2359
Detroit/Wayne (DTW)	(RNAV only) BNA IMPEL VHP FWA MIZAR–STAR	
	or	
	BNA CCT VHP FWA MIZAR–STAR	
Houston (HOU)	(DME/DME–IRU or GPS–equipped) MEI AEX ROKIT (RNAV)–STAR	
	(Non–advanced NAV only) MEI AEX DAS–STAR	
Houston (IAH)	(Turbojets–DME/DME–IRU or GPS–equipped) MEI AEX TXMEX (RNAV)–STAR	
	or	
	(Non–advanced NAV only) MEI AEX DAS–STAR	
Washington Dulles (IAD)	ATL J14 J51 FAK COATT–STAR	
Washington Natl (DCA)	ATL J14 RIC IRONS–STAR	
	or	
	(GPS or DME/DME–IRU equipped) ATL J014 RIC OJAAY (RNAV)–STAR	
CHARLESTON (CHS)		
Baltimore (BWI)	J79 TYI J40 RIC OTT–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) J79 TYI J40 RIC RAVNN (RNAV)–STAR	1100–0400
Detroit/Wayne (DTW)	BKW GEMNI–STAR	
Houston (HOU)	(GPS or DME/DME–IRU equiped) MGM J37 SJI COLUMBIA (RNAV)–STAR	
	or	
	(Non–advanced NAV only) MGM J37 SJI AEX DAS–STAR	
Houston (IAH)	(DME/DME–IRU or GPS–equipped) MGM J37 SJI WOLDE (RNAV)–STAR	
	or	
	(Non–advanced NAV only) MGM J37 SJI AEX DAS–STAR	
Philadelphia (PHL)	J121 SWL SWL034 RADDS VCN–STAR	1100–0400
Washington Dulles (IAD)	J55 FLO J207 RDU FAK COATT–STAR	
	or	
	(GPS or DME/DME–IRU equipped) J55 FLO J207 RDU FAK BARIN–STAR	

Terminals	Route	Effective Times (UTC)
CHARLOTTE (CLT)		
Baltimore (BWI)	MERIL RDU J52 RIC OTT–STAR	1100–0300
	or	
	(GPS or DME/DME–IRU equipped) MERIL RDU J52 RIC RAVNN (RNAV)–STAR	1100–0300
Boston (BOS)	MERIL RDU J207 FKN J79 JFK ORW–STAR	
Chicago Midway (MDW)	SADIE HNN FWA GOSHEN–STAR	1100–0300
	or	
	SADIE HVQ APE J178 FWA GOSHEN–STAR	1100–0300
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) SADIE FLM HEVAN MZZ ROYKO (RNAV)–STAR	1100–0300
	or	
	(non–advanced RNAV only) SADIE FLM HEVAN MZZ MZZ344/33 OXI KNOX–STAR	1100–0300
Cincinnati (CVG)	(RNAV only) HMV JAKIE (RNAV)–STAR	
	or	
	(all others) HMV HARDU–STAR	
Denver (DEN)	HARAY SPA SPA270 VXV125 VXV BNA FAM J112 BUM J110 GCK J154 RYLIE DANDD–STAR	1100–0300
Detroit/Wayne (DTW)	HUGO–DP ROBAY BKW GEMNI–STAR	
Houston (HOU)	(DME/DME–IRU or GPS–equipped) AHN MGM J37 SJI WOLDE (RNAV)–STAR	
	or	
	(DME/DME–IRU or GPS–equipped) AHN ATL J14 VUZ AEX ROKIT (RNAV)–STAR	
	or	
	(Non–advanced NAV only) AHN ATL J14 VUZ AEX DAS–STAR	
	or	
	(DME/DME–IRU or GPS equipped) AHN MGM J37 SJI Columbia (RNAV)–STAR	
Houston (IAH)	(Turbojets–DME/DME–IRU or GPS–equipped) AHN ATL J14 VUZ AEX TXMEX (RNAV)–STAR	
	or	
	(Non–advanced NAV only) AHN ATL J14 VUZ AEX DAS–STAR	
Kennedy (JFK)	MERIL RDU J209 ORF J121 SIE CAMRN–STAR	
La Guardia (LGA)	MERIL RDU J55 HPW J191 PXT KORRY–STAR	1100–0300
Louisville (LOU)	SADIE LOZ V310 IIU	1100–0300
Newark (EWR)	RDU FAK DYLIN–STAR	1100–0300
	or	
	(GPS or DME/DME–IRU equipped) RDU FAK PHLBO (RNAV)–STAR	1100–0300
Norfolk (ORF)	MERIL RDU TYI CVI V1 DRONE	1100–0300
Philadelphia (PHL)	MERIL RDU248 J51 FAK DPNT–STAR	1100–0400
Richmond (RIC)	MERIL RDU LVL	
Teterboro (TEB)	(Advanced Nav Only) MERIL RDU FAK JAIKE–STAR	1100–0300
	or	
	(Non–Advanced Nav Only) MERIL RDU FAK BRV AML J227 J49 J70 LVZ LVZ–STAR	1100–0300
Washington Dulles (IAD)	MERIL RDU248 J51 FAK COATT–STAR	1100–0300
Washington Natl (DCA)	MERIL RDU J52 RIC IRONS–STAR	
	or	
	(GPS or DME/DME–IRU equipped) MERIL RDU J52 OJAAY (RNAV)–STAR	
Windsor Locks (BDL)	MERIL RDU J207 FKN J79 JFK DPK DPK–STAR	
CHATTANOOGA (CHA)		
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)–STAR	0000–2359
	or	
	(non–advanced RNAV only) GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX–STAR	0000–2359
CINCINNATI (CVG)		
Albany (ALB)	(RNAV only) ROCKT (RNAV)–DP ROCKT CADRE AHTIY PSB	

Terminals	Route	Effective Times (UTC)
Allentown (ABE)	(RNAV only) ROCKT (RNAV)–DP ROCKT CADRE AHTIY JST HAR	
Atlanta (ATL)	(RNAV only) BLUEGRASS–DP BWG ERLIN (RNAV)–STAR or (all others) BLUEGRASS–DP BWG ROME–STAR	
Baltimore (BWI)	V128 YRK HVQ J8 CSN OTT–STAR or (GPS or DME/DME–IRU equipped) V128 YRK HVQ J8 CSN RAVNN (RNAV)–STAR	
Birmingham (BHM)	BLUEGRASS–DP TRFWA LVT SYI VUZ	
Boca Raton (BCT)	(GPS or DME/DME–IRU equipped) BLUEGRASS–DP TRFWA NOTWO WALET HITTR LATHY PRRIE (RNAV)–STAR or (GPS or DME/DME–IRU equiped) BLUEGRASS–DP HYK VXV J43 ATL J89 OTK PRRIE (RNAV)–STAR.	
Boston (BOS)	(RNAV only) ROCKT (RNAV)–DP ROCKT CADRE AHTIY PSB HNK ALB GDM GARDNER–STAR	
Chicago O'Hare (ORD)	(Advanced NAV only) JBNCH (RNAV)–DP MIE MZZR ROYKO (RNAV)–STAR or (Non–Advance Nav only) HAGOL (RNAV)–DP DQN FWA KNOX–STAR or HAGOL (RNAV)–DP DQN FWA WATSN (RNAV)–STAR	
Dallas/Ft. Worth (DFW)	IIU PXV J131 LIT BYP	
Fort Lauderdale (FLL)	(GPS or DME/DME–IRU equipped) SILK (RNAV)–DP TRFWA NOTWO OTK JINGL (RNAV)–STAR or (all others) BLUEGRASS–DP HYK VXV J43 ATL J89 HITTR J75 FORTL–STAR	
Fort Myers (FMY)	(Turbojets, DME/DME–IRU or GPS) KENLN (RNAV)–DP HYK VXV J43 SZW TYNEE (RNAV)–STAR or (all others) BLUEGRASS–DP HKY VXV J43 SZW PIE JOSFF–STAR	
Fort Myers (RSW)	(GPS or DME/DME–IRU equipped) KENLN (RNAV)–DP HYK VXV J43 SZW TYNEE (RNAV)–STAR or (all others) BLUEGRASS–DP HYK VXV J43 SZW PIE JOSFF–STAR	1100–0300
Harrisburg (MDT)	(RNAV only) ROCKT (RNAV)–DP AHTIY JST HAR	
Houston (HOU)	(GPS or DME/DME–IRU equipped) CHCLL (RNAV)–DP BWG J6 LIT J180 SWB ROKIT (RNAV)–STAR or (Non–advanced NAV only) BLUEGRASS–DP BWG J6 LIT J180 SWB DAS–STAR	
Houston (IAH)	(Turbojets–GPS or DME/DME–IRU equipped) LIT CHCLL (RNAV)–DP BWG J6 LIT J180 SWB TXMEX (RNAV)–STAR or (all others) LIT J180 SWB BLUEGRASS–DP BWG J6 DAS–STAR	
Jackson (JAN)	(all others) BLUEGRASS–DP TRFWA LVT SYI VUZ JAN or (RNAV only) SILKS (RNAV)–DP TRFWA LVT SYI VUZ JAN	
La Guardia (LGA)	(RNAV only) ROCKT (RNAV)–DP AHTIY PSB MILTON–STAR	1000–1800

Terminals	Route	Effective Times (UTC)
Manchester (MHT)	(RNAV only) ROCKT (RNAV)–DP AHTIY PSB ALB EEN	
Marco Island (MKY)	(all others) BLUEGRASS–DP HYK VXV J43 SZW PIKKR (RNAV)–STAR or (RNAV only) KENLN (RNAV)–DP HYK VXV J43 SZW PIKKR (RNAV)–STAR	
Miami (MIA)	(Turbojets–GPS or DME/DME–IRU equipped) SILKS (RNAV)–DP TRFWA NOTWO SZW SSCOT (RNAV)–STAR or (all others) BLUEGRASS–DP HYK VXV J43 ATL SZW J43 PIE CYY–STAR	
Mobile (MOB)	(all others) BLUEGRASS–DP TRFWA LVT SYI VUZ SJI or (RNAV only) SILKS (RNAV)–DP TRFWA LVT SYI VUZ SJI	
Naples (APF)	HYK VXV J43 SZW PIKKR (RNAV)–STAR	
Newark (EWR)	ROD J29 J584 SLT FQM–STAR	
Newburgh (SWF)	(RNAV only) ROCKT (RNAV)–DP ROCKT CADRE AHTIY PSB J49 HNK DNY V483 FILPS	
New Orleans (MSY)	(all others) BLUEGRASS–DP TRFWA LVT SYI VUZ J22 MEI RYTHM–STAR or (RNAV only) SILKS (RNAV)–DP TRFWA LVT SYI VUZ J22 MEI RHYTHM–STAR	
Orlando Executive (ORL)	(all others) BLUEGRASS–DP HYK VXV J99 IRQ J85 AMG LEESE–STAR or (GPS or DME/DME–IRU equipped) HYK VXV J99 IRQ J85 AMG SHEMP MTATA PIGLT (RNAV)–STAR	1100–0300 1100–0400
Orlando Intl (MCO)	(all others) BLUEGRASS–DP HYK VXV J99 IRQ J85 AMG LEESE–STAR or (GPS or DME/DME–IRU equipped) KENLN (RNAV)–DP HYK VXV J99 IRQ J85 AMG BUGGZ (RNAV)–STAR	1100–0300 1100–0400
Philadelphia (PHL)	(RNAV only) ROCKT (RNAV)–DP AHTIY JST BUNTS–STAR	
Phoenix (PHX)	BLUEGRASS–DP IIU PXV J78C IRW J74C CNX ZUN BUNTR or BLUEGRASS–DP IIU PXV J78C ZUN BUNTR or CHCLL–DP IIU PXV J78C ZUN EAGUL or CHCLL–DP IIU PXV J78C IRW J74C CNX ZUN EAGUL	
Portland (PWM)	(RNAV only) ROCKT (RNAV)–DP AHTIY PSB J49 ALB ENE	
Providence (PVD)	(RNAV only) ROCKT (RNAV)–DP AHTIY PSB J49 HNK TEDDY–STAR	
Sarasota/Bradenton (SRQ)	(all others) BLUEGRASS–DP HYK VXV J43 SZW CLAMP–STAR or (RNAV only) KENLN (RNAV)–DP HYK VXV J43 SZW CLAMP–STAR	
Tampa (TPA)	HYK VXV J43 SZW DARBS–STAR or (GPS or DME/DME–IRU equipped) KENLN (RNAV)–DP HYK VXV J43 SZW FOXXX (RNAV)–STAR	

Terminals	Route	Effective Times (UTC)
Washington Dulles (IAD)	(all others) RHOMM–DP HVQ ROYIL–STAR	
	or	
	(RNAV only) GIPLE (RNAV)–DP HVQ SHANON (RNAV)–STAR	
Washington Natl (DCA)	V128 YRK HVQ WZRRD–STAR	
	or	
	V128 YRK HVQ ELDEE (RNAV)–STAR	
West Palm Beach (PBI)	(GPS or DME/DME–IRU equipped) SILKS RNAV–DP TRFWA NOTWO OTK WLACE (RNAV–STAR)	
	or	
	(GPS or DME/DME–IRU equipped) KENLN (RNAV)–DP HYK VXV J43 ATL J89 OTK WLACE (RNAV–STAR)	
Wilkes Barre/Scranton (AVP)	(RNAV only) ROCKT (RNAV)–DP ROCKT CADRE ANTIY PSB LVZ	
Windsor Locks (BDL)	(RNAV only) ROCKT (RNAV)–DP ROCKT CADRE AHTIY PSB RKA SWEDE SWEDE–STAR	
DAYTONA BEACH (DAB)		
Charlotte (CLT)	CRG J51 SAV J207 FLO CTF–STAR	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) CRG J51 SAV HUSTN (RNAV)–STAR	
FORT LAUDERDALE METRO AREA (FLL, FXE, PMP)		
Albany (ALB)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JOANI LGA LGA055 TRUDE V487 CANAN V130	
Atlanta (ATL)	J20 ORL J81 CHESN SINCA–STAR	1000–0300
	or	
	(RNAV only) J20 ORL J81 CHESN CANUK (RNAV) –STAR	1000–0300
Baltimore (BWI)	(at or below 310) J20 ORL J53 CRG J51 SAV J55 CHS J165 RIC OTT–STAR	1000–0300
	or	
	(Water–Turbojets) ZAPPA PERMT AR16 ILM J40 RIC OTT–STAR	1000–0300
	or	
	(at or above 330) J113 CRG J51 SAV J55 CHS J165 RIC OTT–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) (at or below 310) J20 ORL J53 CRG J51 SAV J55 CHS J165 RIC RAVNN (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) (at or above 330) J113 CRG J151 SAV J55 CHS J165 RIC RAVNN (RNAV)–STAR	1000–0300
	or	
	(Water–Turbojets–GPS or DME/DME–IRU equipped) ZAPPA PERMT AR16 ILM J40 RIC RAVNN (RNAV)–STAR	1000–0300
Bedford (BED)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
	or	
	(Water–Turbojets) (Alternate) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Beverly (BVY)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
	or	

Terminals	Route	Effective Times (UTC)
	(Water–Turbojets) (Alternate) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Boston (BOS)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK ORW–STAR	1000–0300
	or	
	(at or below 290) J20 ORL J53 CRG J51 SAV J55 CHS J79 JFK ORW–STAR	1000–0300
	or	
	(at or above 330) J113 CRG J51 SAV J55 CHS J79 JFK ORW–STAR	1000–0300
Bridgeport (BDR)	(Water–Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
Charlotte (CLT)	(at or below 290) J20 ORL J53 CRG J51 SAV J207 FLO CTF–STAR	1000–0300
	or	
	(at or above 330) J113 CRG J51 SAV J207 FLO CTF–STAR	1000–0300
	or	
	(at or above 330–Turbojets–GPS or DME/DME–IRU equipped) J113 CRG J51 SAV HUSTN (RNAV)–STAR	1000–0300
	or	
	(at or below 290–Turbojets–GPS or DME/DME–IRU equipped) J20 ORL J53 CRG J51 SAV HUSTN (RNAV)–STAR	1000–0300
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)–STAR	1000–0300
	or	
	(non–advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	1000–0300
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)–STAR	1000–0300
	or	
	(non–advanced RNAV only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX–STAR	1000–0300
	(RNAV only) CTY J91 VXV JAKIE (RNAV)–STAR	
Cincinnati (CVG)	(all others) CTY J91 VXV HARDU–STAR	1000–0300
	or	
	(RNAV) only) CTY J91 VXV JAKIE (RNAV)–STAR	
Cleveland (CLE)	J20 ORL J53 IRQ J85 HVQ J85 TVT040 KEATN KEATN–STAR	1000–0300
Columbus (CMH)	J20 ORL J81 IRQ J53 SPA J85 HVQ HNN BREMN–STAR	1000–0300
Cross City (CTY)	J85 LLAKE CTY	1030–0300
	or	
	CTY	
Dallas/Fort Worth (DFW)	LAL J73 SZW J2 CEW J50 AEX CQY	1000–0300
	or	
	SRQ Q100 REDFN Q105 HRV J58 AEX CQY	1000–0300
Danbury (DXR)	(Water–Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED–STAR	
Daytona Beach (DAB)	J20 LLNCH MLB V3	1030–0300
Denver (DEN)	LAL J73 SZW J41 MEM RZC PER GCK J154 RYLIE DANDD–STAR	1030–0300
	or	
	SRQ Q100 REDFN Q105 HRV J58 SPS J168 LAA QUAIL–STAR	1030–0300
Detroit/Wayne (DTW)	J20 ORL J53 SPA HNN WEEDA–STAR	
Detroit Satellites:		
Ann Arbor (ARB)	J20 ORL J81 IRQ J99 VXV J43 FLM DQN CRUXX–STAR	

Terminals	Route	Effective Times (UTC)
Pontiac (PTK), Windsor (CYQG)	J20 ORL J81 IRQ J85 DJB LLEEO–STAR	
Willow Run (YIP)	J20 ORL J81 IRQ J99 VXV J43 FLM DQN CRUXX–STAR	1000–0300
Young (DET)	J20 ORL J81 IRQ J85 DJB LLEEO–STAR	1000–0300
East Hampton (HTO)	(Water–Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121	
Farmingdale (FRG)	(Water) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	
Gainesville (GNV)	J85 LLAKE LAL GNV or LAL GNV	1030–0300
Groton/New London (GON)	(Water–Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 HTO	
Hartford (HFD)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD V1	
Houston (IAH)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV WOLDE (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) LAL J73 SZW J2 SJI WOLDE (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) LAL J73 SZW J2 CEW–030 J50 AEX DAS–STAR	1000–0300
Houston (HOU)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) LAL J73 SZW J2 SJI COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS–STAR	
Indianapolis (IND)	CTY J91 ATL J89 IIU DECEE–STAR	1000–0300
Islip (ISP)	(Water–Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SARDI CCC	
Jacksonville (CRG)	J20 ORL J53	1030–0300
Kennedy (JFK)	(Water–Turbojets) ZAPPA WOLFO AR18 WETRO CEBEE SWL J121 SIE CAMRN–STAR	1000–0300
	or	
	(at or below 290) J20 ORL J53 CRG J51 SAV J55 CHS J121 SIE CAMRN–STAR	1000–0300
	or	
	(at or above 330) J113 CRG J51 SAV J55 CHS J121 SIE CAMRN–STAR	1000–0300
La Guardia (LGA)	(Water–Turbojets) ZAPPA PERMT AR16 ILM J40 TYI HPW J191 PXT KORRY–STAR	1000–0300
	or	
	(at or below 290) J20 ORL J53 CRG J51 SAV J207 RDU J55 HPW J191 PXT KORRY–STAR	1000–0300
	or	
	(at or above 330) J113 CRG J51 SAV J207 RDU J55 HPW J191 PXT KORRY–STAR	1000–0300
Lawrence (LWM)	(Water–Turbojets) (Alternate) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
	or	
	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
Louisville (SDF)	CTY J91 ATL HCH DARBY–STAR	1000–0300
Manchester (MHT)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK ALB EEN	
Melbourne (MLB)	J20 LLNCH MLB	1030–0300
Minneapolis (MSP)	CTY J91 ATL J89 BAE EAU–STAR	1000–0300
Montreal (CYUL)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK J37 ALB J6 PLB ABCOT–STAR	
Nantucket (ACK)	(Water–Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO V46	

Terminals	Route	Effective Times (UTC)
Nashville (BNA)	CTY J91 ATL GQO VOLLS–STAR	1000–0300
Newark (EWR)	(Water–Turbojets) ZAPPA PERMT AR16 ILM J109 FAK DYLIN–STAR	1000–0300
	or	
	(at or below 310) J20 ORL J53 CRG J51 SAV J207 FLO J55 J51 FAK DYLIN–STAR	1000–0300
	or	
	(at or above 330) J113 CRG J51 SAV J207 FLO J55 J51 FAK DYLIN–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped–at or above 330) J113 CRG J51 SAV J207 FLO J55 J51 FAK PHLBO (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped–at or below 310) J20 ORL J53 CRG J51 SAV J207 FLO J55 J51 FAK PHLBO (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) ZAPPA PERMT AR16 ILM J109 FAK PHLBO (RNAV)–STAR	1000–0300
Newburgh (SWF)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR	
New Haven (HVN)	(Water–Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
New Orleans (MSY)	SRQ Q100 REDFN Q105 HRV	1000–0300
	or	
	LAL J73 SZW J2	1000–0300
Ocala (OCF)	J85 LLAKE LAL	1030–0300
	or	
	LAL	1030–0300
Orlando (MCO)	J20 LLNCH GOOFY–STAR	1030–0300
Overwater Routes to the Northeast	(Water–Turbojets) ZAPPA WOLFO AR18 DIW	1030–0300
Overwater Routes to the Northwest	LBV J616	1030–0300
	or	
	LBV J616 SRQ Q100 REDFN Q105 HRV J58	1030–0300
Philadelphia (PHL)	J20 ORL J53 CRG J51 SAV J55 CHS J121 SWL SWL034 RADDS CEDAR LAKE–STAR	1000–0300
	or	
	(Water–Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL RADDS CEDAR LAKE–STAR	1000–0300
Pittsburgh (PIT)	(at or below 290) J20 ORL J53 CRG J51 CAE PSK EKN IHD NESTO–STAR	1000–0300
	or	
	(at or above 330) J113 CRG J51 CAE PSK EKN IHD NESTO–STAR	1000–0300
Poughkeepsie (POU)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR	
Providence (PVD)	(Water–Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO JORDN (RNAV)–STAR	
Raleigh–Durham (RDU)	(at or below 290) J20 ORL J53 CRG J51 SAV J55 CHS J174 ILM BRADE–STAR	1000–0300
	or	
	(at or above 330) J113 CRG J51 SAV J55 CHS J174 ILM BRADE–STAR	1000–0300
	or	
	(Water–Turbojets) ZAPPA PERMT AR16 ILM BRADE–STAR	1000–0300
St Louis (STL)	THNDR CTY J151 VISQA QBALL–STAR	
	or	
	(/E, /G, /R, /J, /L, /Q) THNDR KPASA Q110 FEONA VUZ J151 VISQA QBALL–STAR	
Sarasota/Bradenton (SRQ)	LBV J43 ROGAN	1030–0300
	or	
	ROGAN	1030–0300

Terminals	Route	Effective Times (UTC)
Springfield/Chicopee (CEF)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 VILLS DPK DEER PARK–STAR	
Tallahassee (TLH)	J85 LLAKE LAL SZW	1030–0300
	or	
	LAL	1030–0300
Tampa (TPA)	J85 THNDR LBV BRDGE–STAR	1030–0300
	or	
	BRDGE BRDGE–STAR	1030–0300
	or	
	(GPS or DME/DME–IRU equipped) DEAKK DEAKK (RNAV)–STAR	1030–0300
	or	
	(GPS or DME/DME–IRU equipped) J85 THNDR LBV DEAKK (RNAV)–STAR	1030–0300
Toronto (CYYZ)	(Water–Turbojets) ZAPPA PERMT AR16 ILM J109 BUF YOUTH–STAR	
Vero Beach (VRB)	J20 ARKES VRB	1030–0300
Washington Dulles (IAD)	(at or below 310) J20 ORL J53 CRG J51 SAV J207 RDU FAK COATT–STAR	1000–0300
	or	
	(at or below 310–GPS or DME/DME–IRU equipped) J20 ORL J53 CRG J51 SAV J207 RDU FAK BARIN–STAR	1000–0300
	(at or above 330–GPS or DME/DME–IRU equipped) J113 CRG J51 SAV J207 RDU FAK BARIN–STAR	1000–0300
	or	
	(at or above 330) J113 CRG J51 SAV J207 RDU FAK COATT–STAR	1000–0300
	or	
	(Water) ZAPPA PERMT AR16 ILM J109 FAK COATT–STAR	1000–0300
	or	
	(Water–GPS or DME/DME–IRU equipped) ZAPPA PERMT AR16 ILM J109 FAK BARIN–STAR	1000–0300
Washington Natl (DCA)	(at or below 310) J20 ORL J53 CRG J51 SAV J55 CHS J165 RIC IRONS–STAR	1000–0300
	or	
	(at or above 330) J113 CRG J51 SAV J55 CHS J165 RIC IRONS–STAR	1000–0300
	or	
	(Water–Turbojets) ZAPPA PERMT AR16 ILM J40 RIC IRONS–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped–at or below 310) J20 ORL J53 CRG J51 SAV J55 CHS J165 RIC OJAAY (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped–at or above 330) J113 CRG J51 SAV J55 CHS J165 RIC OJAAY (RNAV)–STAR	1000–0300
	or	
	(Water–Turbojets–GPS or DME/DME–IRU equipped) ZAPPA PERMT AR16 ILM J40 RIC OJAAY (RNAV)–STAR	1000–0300
Westfield (BAF)	(Water–Turbojets) ZAPPA PERMIT AR16 ILM KEMPR SBY J79 VILLS DPK DEER PARK–STAR	
Westhampton Beach (FOK)	(Water–Turbojets) ZAPPA WOLFO AR18 WETRO CEBEE SWL J121 HTO	
White Plains (HPN)	(Water–Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE BOUNO–STAR	
	or	
	(Water–Turboprops) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED–STAR	

Terminals	Route	Effective Times (UTC)
Wilmington (ILM)	(Water–Turbojets–Overwater Routes to the NE) ZAPPA PERMT AR16	
Windsor Locks (BDL)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 VILLS DPK DEER PARK–STAR	
Worcester (ORH)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD	
FORT MYERS METRO AREA (RSW, FMY, APF, MKY, PGD)		
Daytona Beach (DAB)	ORL	1030–0300
Gainesville (GNV)	LAL	1030–0300
Houston (HOU)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) LAL J73 SZW J2 SJI COLUMBIA (RNAV)–STAR	
	or	
	(Non–advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS–STAR	
Houston (IAH)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV WOLDE (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) LAL J73 SZW J2 SJI WOLDE (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS–STAR	1000–0300
Jacksonville (CRG)	ORL J53	1030–0300
Miami (MIA)	(all others) CYY CYY–STAR	1030–0300
	or	
	(/E, /G, /R, /J, /L, /Q) CYY DEEDS (RNAV)–STAR	1030–0300
Ocala (OCF)	LAL	1030–0300
Orlando (MCO)	LAL MINEE–STAR	1030–0300
	or	
	DOWNN MINEE–STAR	1030–0300
	or	
	LAL	1030–0300
	or	
	(Turbojets) ORL	1030–0300
	or	
	(Turbojets) DOWNN MINEE–STAR	1030–0300
Tallahassee (TLH)	LAL	1030–0300
Tampa (TPA)	RSW BRDGE–STAR	1030–0300
	or	
	V7 ROGAN J43 PIE	1030–0300
	or	
	(GPS or DME/DME–IRU equipped) DEAKK (RNAV)–STAR	1030–0300
Westbound destinations	SRQ Q100 LEV J86	
	or	
	BAGGS Q102 LEV J86	
	or	
	SRQ 100 REDFN Q105 HRV J58	
From PAGE FLD (FMY) only:		
Cincinnati (CVG)	(RNAV only) LAL CTY J91 VXV JAKIE (RNAV)–STAR	
	or	
	(all others) LAL CTY J91 ATL VXV HARDU–STAR	
Cleveland Metro (CLE)	LAL CTY J91 HNN TVT KEATN–STAR	
Columbus (CMH)	LAL CTY J91 HNN BREMN–STAR	
Detroit/Wayne (DTW)	LAL CTY J91 VXV J43 FLM DQN MIZAR–STAR	
Detroit Satellites: Ann Arbor (ARB), Willow Run (YIP)	LAL CTY J91 VXV J43 FLM DQN CRUXX–STAR	
Pontiac (PTK), Windsor (CYQG), Young (DET)	LAL J73 J119 TAY J85 DJB LLEEO–STAR	
La Guardia (LGA)	ORL J53 CRG J51 SAV J207 J55 HPW J191 PXT KORRY–STAR	1100–0300

Terminals	Route	Effective Times (UTC)
Miami (MIA)	(Turbojets–GPS or DME/DME–IRU equipped) CYY SSCOT (RNAV)–STAR	
Newark (EWR)	ORL J53 CRG J51 FAK DYLIN–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) ORL J53 CRG J51 FAK PHLBO(RNAV)–STAR	1100–0400
Washington Natl (DCA)	ORL J53 CRG J51 SAV J55 CHS J165 RIC IRONS–STAR	1000–0300
From SW FLORIDA INTL (RSW) only:		
Atlanta (ATL)	RSW LAL J73 SZW LGC–STAR	1000–0300
	or	
	(RNAV only) RSW LAL J73 SZW HONIE (RNAV)–STAR	1000–0300
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) RSW LAL CTY J91 ATL J89 IIU OKK FISSK (RNAV)–STAR	1000–0300
	or	
	(non–advanced RNAV only) RSW LAL CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	1000–0300
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)–STAR	1000–0300
	or	
	(non–advanced RNAV only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 KNOX–STAR	1000–0300
Cleveland (CLE)	RSW LAL J73 J119 TAY J85 IRQ J85 HVQ J85 TVT040 KEATN KEATN–STAR	
Columbus (CMH)	RSW LAL J73 J119 TAY J85 HVQ HNN BREMN–STAR	1000–0300
Dallas/Ft. Worth (DFW)	RSW SRQ Q100 REDFN Q105 HRV J58 AEX CQY	
	or	
	RSW LAL J73 SZW J2 CEW J50 AEX CQY	1000–0300
Denver (DEN)	RSW SRQ Q100 REDFN Q105 HRV J58 SPS J168 LAA QUAIL–STAR	
	or	
	RSW LAL J73 SZW J41 MEM RZC PER GCK J154 RYLIE DANDD–STAR	
Detroit/Wayne (DTW)	JOCKS ORL J53 SPA HNN WEEDA–STAR	
Detroit Satellites:		
Ann Arbor (ARB), Willow Run (YIP)	LAL CTY J91 VXV J43 FLM DQN CRUXX–STAR	
Pontiac (PTK), Windsor (CYQG), Young (DET)	LAL J73 J119 TAY J85 DJB LLEEO–STAR	
Indianapolis (IND)	RSW LAL CTY J91 ATL J89 IIU DECEE–STAR	
Louisville (SDF)	RSW LAL CTY J91 ATL HCH DARBY–STAR	
Miami (MIA)	(Turbojets–GPS or DME/DME–IRU equipped) CYY SSCOT (RNAV)–STAR	
Minneapolis (MSP)	RSW LAL CTY J91 ATL J89 BAE EAU–STAR	1000–0300
Nashville (BNA)	RSW LAL CTY J91 ATL GQO VOLLS–STAR	
Pittsburgh (PIT)	RSW ORL J53 CRG J51 CAE PSK EKN IHD NESTO–STAR	1000–0300
Raleigh–Durham (RDU)	RSW ORL J53 CRG J51 SAV J55 CHS J174 ILM BRADE–STAR	
St Louis (STL)	LAL J73 SZW J41 VUZ STL	1100–0300
Washington Dulles (IAD)	RSW ORL J53 CRG J51 SAV J207 RDU FAK COATT–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) RSW ORL J53 CRG J51 SAV J207 RDU FAK BARIN–STAR	1000–0300
Wahington Natl (DCA)	RSW ORL J53 CRG J51 SAV J55 CHS J165 RIC IRONS–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) RSW ORL J53 CRG J51 SAV J55 CHS J165 RIC OJAAY (RNAV)–STAR	1000–0300

Terminals	Route	Effective Times (UTC)
GREENSBORO (GSO)		
Chicago Midway (MDW)	PSK HNN FWA GOSHEN–STAR	1100–0300
	or	
	PSK HVQ APE J178 FWA GOSHEN–STAR	1100–0300
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) BOTTM FLM HEVAN MZZ ROYKO (RNAV)–STAR	1100–0300
	or	
	(non–advanced RNAV only) BOTTM FLM HEVAN MZZ MZZ344/33 OXI KNOX–STAR	1100–0300
Cincinnati (LUK)	PSK HVQ FLM	0700–2300
Detroit/Wayne (DTW)	BOTTM BKW GEMNI–STAR	
La Guardia (LGA)	J14 PXT KORRY–STAR	
Louisville (SDF)	VXV J99 GHATS EWO IIU	0700–2300
Newark (EWR)	J14 J51 FAK DYLIN–STAR	
	or	
	(GPS or DME/DME–IRU equipped) J14 J51 FAK PHLBO (RNAV)–STAR	
GREER (GSP)		
Detroit/Wayne (DTW)	SPA HMV HNN WEEDA–STAR	
HUNTSVILLE (HSV)		
Chicago O'Hare (ORD)	MEM FTZ BDF BDF–STAR	0000–2359
Detroit/Wayne (DTW)	(RNAV only) BNA IMPEL VHP FWA MIZAR–STAR	
	or	
	BNA CCT VHP FWA MIZAR–STAR	
JACKSONVILLE METRO AREA (JAX)		
Baltimore (BWI)	J51 SAV J55 CHS J79 TYI J40 RIC OTT–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) J51 SAV J55 CHS J79 TYI J40 RIC RAVNN (RNAV)–STAR	1100–0400
Charlotte (CLT)	J53 IRQ UNARM–STAR	
	or	
	J51 SAV J207 FLO CTF–STAR	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) J51 SAV HUSTN (RNAV)–STAR	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) J53 IRQ ADENA (RNAV)–STAR	
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) SAV CAE HMV FLM HEVAN MZZ ROYKO (RNAV)–STAR	0000–2359
	or	
	(non–advanced RNAV only) SAV CAE HMV FLM HEVAN MZZ MZZ344/33 OXI KNOX–STAR	0000–2359
Detroit/Wayne (DTW)	NOWAY J53 SPA HNN WEEDA–STAR	
Houston (HOU)	(GPS or DME/DME–IRU equipped) TAY J2 SJI COLUMBIA (RNAV)–STAR	
	or	
	(Non–advanced NAV only) TAY J2 CEW J50 AEX DAS–STAR	
Houston (IAH)	(GPS or DME/DME–IRU equipped) TAY J2 SJI WOLDE (RNAV)–STAR	
	or	
	(Non–advanced NAV only) TAY J2 CEW J50 AEX DAS–STAR	
La Guardia (LGA)	J51 SAV J207 RDU J55 HPW J191 PXT KORRY–STAR	1100–0400
Newark (EWR)	CRG J51 FAK DYLIN–STAR	
	or	
	(GPS or DME/DME–IRU equipped) CRG J51 FAK PHLBO (RNAV)–STAR	
Philadelphia (PHL)	J51 SAV J55 CHS J121 SWL SWL034 RADDS VCN–STAR	1100–0400

Terminals	Route	Effective Times (UTC)
Tampa (TPA)	TAY LZARD–STAR	
	or	
	(GPS or DME/DME–IRU equipped) TAY DADES (RNAV)–STAR	
Washington Dulles (IAD)	SAV CHS J165 J109 FAK COATT–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) SAV J207 RDU FAK BARIN–STAR	1100–0400
Washington Natl (DCA)	J51 SAV J55 CHS J165 RIC IRONS–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU euipped) J51 SAV J55 CHS J165 RIC OJAAY (RNAV)–STAR	1100–0400
KEY WEST METRO AREA (NQX)		
Daytona Beach (DAB)	RSW ORL	1030–0300
Fort Lauderdale (FLL)	(all others) EYW DVALL–STAR	1030–0300
	or	
	(/E, /G, /R, /J, /L, /Q) EYW CURSO (RNAV)–STAR	1030–0300
Fort Myers (RSW)		1030–0300
Melbourne (MLB)	PHK	1030–0300
Miami (MIA)	(all others) EYW DVALL–STAR	1030–0300
	or	
	(/E, G, /R, /J, /L, /Q) EYW CURSO (RNAV)–STAR	1030–0300
Orlando (MCO)	RSW MINEE–STAR	1030–0300
Palm Beach (PBI)	PHK	1030–0300
Sarasota/Bradenton (SRQ)	RSW V7 ROGAN	1030–0300
Tallahassee (TLH)	RSW LAL	1030–0300
	or	
	(at or above FL360) RSW TEPEE	1030–0300
Tampa (TPA)	RSW BRDGE–STAR	1030–0300
	or	
	(GPS or DME/DME–IRU equipped) RSW DEAKK (RNAV)–STAR	1000–0300
Vero Beach (VRB)	PHK	1030–0300
KNOXVILLE (TYS)		
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) VXV HEVAN MZZ ROYKO (RNAV)–STAR	0000–2359
	or	
	(non–advanced RNAV only) VXV HEVAN MZZ MZZ344/33 OXI KNOX–STAR	0000–2359
Cleveland Metro (CLE)	VXV J91 BULEY J91 HNN TVT KEATN–STAR	
Detroit/Wayne (DTW)	VXV J91 HNN WEEDA–STAR	
La Guardia (LGA)	BKW J42 GVE KORRY–STAR	
LAKELAND METRO AREA (LAL, GIF, BOW, BKV, X16)		
Fort Lauderdale (FLL)	(Jets only–all others) RSW FORTL–STAR	
Key West Intl (EYW)	RSW J41	1030–0300
Miami (MIA)	(Turbojets–GPS or DME/DME–IRU equipped) CYY SSCOT (RNAV)–STAR	
West Palm Beach (PBI)	(Turbojets–GPS or DME/DME–IRU equipped) WLACE (RANV)–STAR	1030–0300
LEXINGTON (LEX)		
Atlanta (ATL)	(RNAV only) AZQ SOT FLCON (RNAV)–STAR	
Cleveland (CLE)	CVG ABERZ–STAR	
LOUISVILLE METRO AREA (LOU, SDF)		
From BOWMAN FIELD (LOU) only		
Dallas/Ft Worth (DFW)	PXV J131 LIT BYP	
Phoenix (PHX)	FAM J78 ABQ J18	
	or	
	FAM J78 IRW J74 SJN J18	

Terminals	Route	Effective Times (UTC)
From LOUISVILLE INTL (SDF) only		
Atlanta (ATL)	MYS BWG ROME–STAR	
	or	
	(RNAV only) MYS BWG RMG ERLIN (RNAV)–STAR	
Cleveland Metro (CLE)	CVG ZABER–STAR	
Houston (HOU)	(GPS or DME/DME–IRU equipped) SWB ROKIT (RNAV)–STAR	
	or	
	(Non–advanced NAV only) SWB DAS–STAR	
Houston (IAH)	(Turbojets–GPS or DME/DME–IRU equipped) SWB TXMEX (RNAV)–STAR	
	or	
	(Non–advanced NAV only) SWB DAS–STAR	
MEMPHIS (MEM)		
Baltimore (BWI)	J42 BKW J147 CSN OTT–STAR	
	or	
	(GPS or DME/DME–IRU equipped) J42 BKW J147 CSN RAVNN (RNAV)–STAR	
Boca Raton (BCT)	(GPS or DME/DME–IRU equipped) MGM SZW PRRIE (RNAV)–STAR	
Boston (BOS)	J42 BNA J46 VXV SPA SPA100 J209 RDU J207 FKN J79 JFK ORW–STAR	
	or	
	J118 SPA SPA100 J209 RDU J207 FKN J79 JFK ORW–STAR	
Cincinnati (CVG)	(RNAV only) J29 PXV SARGO (RNAV)–STAR	
	or	
	(all others) J29 PXV MOSEY–STAR	
Cleveland (CLE)	PXV ZABER–STAR	
Denver (DEN)	RZC PER GCK J154 RYLIE DANDD–STAR	
Detroit/Wayne (DTW)	J29 PXV VHP FWA MIZAR–STAR	
Houston (HOU)	(DME/DME–IRU or GPS–equipped) LIT J180 SWB ROKIT (RNAV)–STAR	
	or	
	(Non–advanced NAV only) LIT J180 SWB DAS–STAR	
Houston (IAH)	(Turbojets–DME/DME–IRU or GPS–equipped) LIT J180 SWB TXMEX (RNAV)–STAR	
	or	
	(Non–advanced NAV only) LIT J180 SWB DAS–STAR	
Kennedy (JFK)	J118 SPA SPA100 J209 ORF J121 SIE CAMRN–STAR	
La Guardia (LGA)	J42 GVE KORRY–STAR	
Louisville (SDF)	BNA BNA037 BARRY EWO	
	or	
	Q29 SIDAE CHERI CHERI–STAR	
Minneapolis (MSP)	J35 STL IOW ALO KASPR–STAR	1300–0300
Newark (EWR)	J42 GVE DYLIN–STAR	
	or	
	(GPS or DME/DME–IRU equipped) J42 GVE PHLBO (RNAV)–STAR	
Orlando (ORL/MCO)	MGM SZW J43 PIE LAL	1100–0400
	or	
	GPS or DME/DME–IRU equipped) MGM SZW J43 PIE COSTR (RNAV)–STAR	1100–0400
	or	
	J41 MGM S2W J43 PIE LAL	
Philadelphia (PHL)	J42 GVE DPNT–STAR	
Pittsburgh (PIT)	J29 PXV IIU HNN WISKE–STAR	
Sarasota/Bradenton (SRQ)	MGM SZW CLAMP–STAR	
Tampa (TPA)	MGM SZW DARBS–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) MEM SZW FOXX (RNAV)–STAR	1100–0400

Terminals	Route	Effective Times (UTC)
Washington Dulles (IAD)	J42 BKW ROYIL–STAR	1100–1830
	or	
	PXV IIU J8 HVQ SHNON (RNAV)–STAR	1830–2230
	or	
	J42 BKW SHNON (RNAV)–STAR	2230–0300
	or	
	PXV IIU J8 HVQ ROYIL–STAR	1830–2230
Washington Natl (DCA)	J42 BKW WZRRD–STAR	
	or	
	(GPS or DME/DME–IRU equipped) J42 BKW ELDEE (RNAV)–STAR	
West Palm Beach (PBI)	MGM SZW WLACE (RNAV)–STAR	
Windsor Locks (BDL)	J42 BNA J46 VXV SPA SPA100 J209 RDU J207 FKN J79 JFK DPK DPK–STAR	
MIAMI METRO AREA (MIA, HWO, OPF, TMB, HST, X51)		
Albany (ALB)	(Water–Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JOANI LGA LGA055 TRUDE V487 CANAN V130	
Atlanta (ATL)	J81 CHESN SINCA–STAR	1000–0300
	or	
	(RNAV only) J81 CHESN CANUK (RNAV)–STAR	1000–0300
Baltimore (BWI)	J53 CRG J51 SAV J55 CHS J79 TYI J40 RIC OTT–STAR	1000–0300
	or	
	(Water–Turbojets) VALLY PERMT AR16 ILM J40 RIC OTT–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) J53 CRG J51 SAV J55 CHS J79 TYI J40 RIC RAVNN (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) VALLEY PERMT AR16 ILM J40 RIC RAVNN (RNAV)–STAR	1000–0300
Bedford (BED)	(Water–Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
	or	
	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Beverly (BVY)	(Water–Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
	or	
	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Boston (BOS)	J53 CRG J51 SAV J55 CHS J79 JFK ORW–STAR	1000–0300
	or	
	(Water–Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK ORW–STAR	
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)–STAR	1000–0300
	or	
	(non–advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	1000–0300
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)–STAR	1000–0300
	or	
	(non–advanced RNAV only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX–STAR	1000–0300

Terminals	Route	Effective Times (UTC)
Cincinnati (CVG)	(RNAV only) CTY J91 VXV JAKIE (RNAV)–STAR	
	or	
	(all others) CTY J91 VXV HARDU–STAR	1000–0300
Columbus (CMH)	J81 IRQ J53 SPA J85 HVQ HNN BREMN–STAR	
Cross City (CTY)	LAL CTY	1030–0300
Dallas/Fort Worth (DFW)	J616 SRQ Q100 REDFN Q105 HRV J58 AEX CQY	1000–0300
	or	
	LAL J73 SZW J2 CEW J50 AEX CQY	1000–0300
Danbury (DXR)	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED–STAR	
Daytona Beach (DAB)	J53 HEDLY MLB V3 or MLB V3	1030–0300
Denver (DEN)	LAL J73 SZW J41 MEM RZC PER GCK J154 RYLIE DANDD–STAR	
Detroit/Wayne (DTW)	J53 SPA HNN WEEDA–STAR	
Detroit Satellites:		
Ann Arbor (ARB), Detroit (DET), Pontiac (PTK), Windsor (CYQG) Willow Run (YIP)	J81 IRQ J99 VXV J43 FLM DQN CRUXX–STAR	
Ann Arbor (ARB)	J81 IRQ J85 DJB LLEEO–STAR	
Fort Pierce (FPR)	J53 HEDLY or FPR	1030–0300
Farmingdale (FRG)	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	
Gainesville (GNV)	Direct	1030–0300
Hampton (HTO)	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121	
Hartford (HFD)	(Water–Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD V1	
Houston Intcntl (IAH)	(DME/DME–IRU or GPS–equipped) LAL J73 SZW J2 SJI WOLDE (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS–STAR	1000–0300
	or	
	J616 SRQ Q100 LEV WOLDE (RNAV)–STAR	1000–0300
Houston Hobby (HOU)	(DME/DME–IRU or GPS–equipped) LAL J73 SZW J2 SJI COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) J616 SRQ Q100 LEV COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS–STAR	1000–0300
Indianapolis (IND)	LAL CTY J91 ATL J89 IIU DECEE–STAR	1000–0300
Islip (ISP)	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SARDI CCC	
Jacksonville (JAX)	J53	1030–0300
Kennedy (JFK)	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	1000–0300
	or	
	J53 CRG J51 SAV J55 CHS J121 SIE CAMRN–STAR	1000–0300
La Guardia (LGA)	(Water) VALLY PERMT AR16 ILM J40 TYI HPW J191 PXT KORRY–STAR	1000–0300
	or	
	J53 CRG J51 SAV J207 RDU J55 HPW J191 PXT KORRY–STAR	1000–0300
Lawrence (LWM)	(Water–Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
	or	
	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	

Terminals	Route	Effective Times (UTC)
Louisville (SDF)	CTY J91 ATL HCH DARBY–STAR	1000–0300
Manchester (MHT)	(Water–Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK ALB EEN	
Melbourne (MLB)	J53 HEDLY or DRCT	1030–0300
Minneapolis (MSP)	CTY J91 ATL J89 BAE EAU–STAR	1000–0300
Montreal (CYUL)	VALLY PERMT AR16 ILM KEMPR SBY J79 JFK J37 ALB J6 PLB ABCOT–STAR	
Nantucket (ACK)	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO V46	
Nashville (BNA)	CTY J91 ATL GQO VOLLS–STAR	1000–0300
Newark (EWR)	(Water) VALLY PERMT AR16 ILM J109 FAK DYLIN–STAR	
	or	
	J53 CRG J51 SAV J207 FLO J55 J51 FAK DYLIN–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) J53 CRG J51 SAV J207 FLO J55 J51 FAK PHLBO (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) VALLY PERMT AR16 ILM J109 FAK PHLBO (RNAV)–STAR	1000–0300
Newburgh (SWF)	(Water–Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR	
New Haven (HVN)	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
New London/Groton (GON)	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 HTO	
New Orleans (MSY)	LAL J73 SZW J2	1000–0300
	or	
	(Water) J616 SRQ Q100 REDFN Q105 HRV	1000–0300
Ocala (OCF)	J73 LAL or DRCT	1030–0300
Orlando (MCO)	J53 PHK GOOFY–STAR	1030–0300
	or	
	(PHK GOOFY–STAR	
Overwater Routes to the Northeast	(Water–Turbojets) VALLY PERMT AR16 ILM	
	or	
	(Water–Turbojets) VALLY WOLFO AR18 DIW	
Overwater Routes to the Northwest	J616 SRQ Q100 LEV J86	1030–0300
	or	
	J616 SRQ Q100 REDFN Q105 HRV J58	1030–0300
Philadelphia (PHL)	J53 CRG J51 SAV J55 CHS J121 SWL SWL034 RADDS VCN–STAR	1000–0300
	or	
	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL RADDS VCN–STAR	1000–0300
Pittsburgh (PIT)	J53 CRG J51 CAE PSK EKN IHD NESTO–STAR	1000–0300
Port Columbus Intl (CMH)	BNA IIU GAIL (RNAV)–STAR	
Poughkeepsie (POU)	(Water–Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR	
Providence (PVD)	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO JORDAN (RNAV)–STAR	
Raleigh–Durham (RDU)	(Water–Turbojets) VALLY PERMT AR16 ILM BRADE–STAR	1000–0300
	or	
	J53 CRG J51 SAV J55 CHS J174 ILM BRADE–STAR	1000–0300
St Louis (STL)	WINCO CTY J151 VISQA QBALL–STAR	1000–0300
	or	
	(/E, /G, /R, /J, /L, /Q) WINCO KPASA Q110 FEONA VUZ J151 VISQA QBALL–STAR	
Sarasota/Bradenton (SRQ)	J616	1030–0300

Terminals	Route	Effective Times (UTC)
Tallahassee (TLH)	J73	
	or	
	LAL	1030–0300
Tampa (TPA)	J43 BRDGE BRDGE–STAR	1030–0300
	or	
	(GPS or DME/DME–IRU equipped) J43 DEAKK DEAKK (RNAV)–STAR	1030–0300
Toronto (CYYZ)	(Water–Turbojets) VALLY PERMT AR16 ILM J109 BUF YOUTH–STAR	
Vero Beach (VRB)	DRCT	1030–0300
	or	
	J53 HEDLY	
Washington Dulles (IAD)	J53 CRG J51 SAV J207 RDU FAK COATT–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) J53 CRG J51 SAV J207 RDU FAK BARIN–STAR	1000–0300
	or	
	(Water) VALLEY PERMT AR16 ILM J109 FAK COATT–STAR	1000–0300
	or	
	(Water–GPS or DME/DME–IRU equipped) VALLY PERMT AR16 ILM J109 FAK BARIN–STAR	1000–0300
Washington Natl (DCA)	(Turbojets) J53 CRG J51 SAV J55 CHS J165 RIC IRONS–STAR	1000–0300
	or	
	(Water–Turbojets) VALLY PERMT AR16 ILM J40 RIC IRONS–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) J53 CRG J51 SAV J55 CHS J165 RIC OJAAY (RNAV)–STAR	1000–0300
	or	
	(Water–Turbojets–GPS or DME/DME–IRU equipped) VALLY PERMT ILM J40 RIC OJAAY (RNAV)–STAR	1000–0300
Westhampton (FOK)	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 HTO	
White Plains (HPN)	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE BOUNO–STAR	
	or	
	(Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED–STAR	
Wilmington (ILM)	(Water–Turbojets) VALLY PERMT AR16	
Windsor Locks (BDL)	(Water–Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 VILLS DPK DPK–STAR	
Worcester (ORH)	(Water–Turbojets) VALLY PERMT AR16 ILM KEMPR SYB J79 JFK DPK MAD HFD	
MOBILE (MOB)		
Houston (HOU)	(DME/DME–IRU or GPS–equipped) SJI COLUMBIA (RNAV)–STAR	
	or	
	(Non–advanced NAV only) SJI J50 AEX DAS–STAR.	
Houston (IAH)	(DME/DME–IRU or GPS–equipped) SJI WOLDE (RNAV)–STAR	
	or	
	(Non–advanced NAV only) SJI J50 AEX DAS–STAR.	
MYRTLE BEACH (MYR)		
Detroit/ Wayne (DTW)	BKW GEMNI–STAR	
NASHVILLE		
Baltimore (BWI)	J42 BKW J147 CSN OTT–STAR	
	or	
	(GPS or DME/DME–IRU equipped) J42 BKW J147 CSN OTT–STAR	
Boca Raton (BCT)	(GPS or DME/DME–IRU equipped) MGM SZW PRRIE (RNAV)–STAR	

Terminals	Route	Effective Times (UTC)
Boston (BOS)	J46 VXV SPA SPA100 J209 RDU J207 FKN J79 JFK ORW–STAR	
Chicago/Midway (MDW)	(/E/G/R/J/L/Q only) IIU OKK FISSK (RNAV)–STAR	0000–2359
	or	
	(non–advanced RNAV only) IIU OKK V285 CLEFT OXI CGT	0000–2359
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) IIU HEVAN MZZ ROYKO (RNAV)–STAR	0000–2359
	or	
	(non–advanced RNAV only) IIU HEVAN MZZ MZZ344/33 OXI KNOX–STAR	0000–2359
	or	
	IIU MZZ OXI KNOX–STAR	
Cincinnati (CVG)	BWG V49 ABB V47 CVG	
Cleveland (CLE)	IIU ZABER–STAR	
Columbus (CMH)	LVT V493 YRK YRK035 APE168 NIKLS	
Denver (DEN)	FAM J112 BUM J110 GCK J154 RYLIE DANDD–STAR	
Detroit/Wayne (DTW)	(RNAV only) IMPEL VHP FWA MIZAR–STAR	
	or	
	CCT VHP FWA MIZAR–STAR	
Fort Lauderdale (FLL)	(all others) J39 MGM SZW J41 PIE FORTL–STAR	
Fort Myers (FMY, RSW)	(Turbojets–GPS or DME/DME–IRU equipped) J39 MGM J41 SZW SSCOT (RNAV)–STAR	1100–0300
Houston (HOU)	(GPS or DME/DME–IRU equipped) LIT J180 SWB ROKIT (RNAV)–STAR	
	or	
	(Non–advanced NAV only) LIT J180 SWB DAS–STAR	
Houston (IAH)	(Turbojets–GPS or DME/DME–IRU equipped) LIT J180 SWB TXMEX (RNAV)–STAR	
	or	
	(Non–advanced NAV only) LIT J180 SWB DAS–STAR	
Indianapolis (IND)	J39 IIU DECEE–STAR	
Kennedy (JFK)	J46 VXV SPA SPA100 J209 ORF J121 SIE CAMRN–STAR	
La Guardia (LGA)	J42 GVE KORRY–STAR	
Miami (MIA)	(all others) J39 MGM SZW J41 PIE CYY–STAR	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) J39 MGM SZW SSCOT (RNAV)–STAR	
Minneapolis (MSP)	IIU J89 BAE EAU–STAR	
Newark (EWR)	SPA J14 J51 FAK DYLIN–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) SPA J14 J51 FAK PHLBO (RNAV)–STAR	1100–0400
Orlando (MCO, ORL)	J39 MGM SZW J43 PIE LAL	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) J39 MGM SZW J43 PIE COSTR (RNAV)–STAR	1100–0400
Philadelphia (PHL)	J42 OTT DPNT–STAR	
Pittsburgh (PIT)	IIU HNN WISKE–STAR	
St. Louis (STL)	QBALL–STAR	
Toronto (CYYZ)	J39 ROD J43 CRL J586 YXU V98 YWT V216	
Washington Dulles (IAD)	J42 BKW ROYIL–STAR	
	or	
	J42 BKW SHNON (RNAV)–STAR	
Washington Natl (DCA)	J42 BKW WZRRD–STAR	
	or	
	(GPS or DME/DME–IRU equipped) J42 BKW ELDEE (RNAV)–STAR	
West Palm Beach (PBI)	(Turbojets–GPS or DME/DME–IRU equipped) MGM SZW WLACE (RNAV)–STAR	

Terminals	Route	Effective Times (UTC)
Windsor Locks (BDL)	J46 VXV SPA SPA100 J209 RDU J207 FKN J79 JFK DPK DPK–STAR	
ORLANDO METRO AREA (MCO, ORL, ISM, LEE, SFB)		
Baltimore (BWI)	(Water–Turbojets–GPS or DME/DME–IRU equipped) MLB LENDS AR16 ILM J40 RIC RAVNN (RNAV)–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) J53 CRG J51 SAV J55 CHS J79 TYI J40 RIC RAVNN (RNAV)–STAR	1100–0400
Detroit/Wayne (DTW)	JAGUAR–DP IRQ J53 SPA HNN WEEDA–STAR	
Fort Pierce (FPR)	VRB	1030–0300
Houston (HOU)	(GPS or DME/DME–IRU equipped) PIE REMIS Q100 LEV COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) SZW J2 SJI COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) SZW J2 CEW J50 AEX DAS–STAR	1000–0300
Houston (IAH)	(GPS or DME/DME–IRU equipped) PIE REMIS Q100 LEV WOLDE (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) SZW J2 SJI WOLDE (RNAV)–STAR	
	or	
	(Non–advanced NAV only) SZW J2 CEW J50 AEX DAS–STAR	1000–0300
Key West (EYW)	RSW J41	1030–0300
Overwater Routes to the Northeast	(Water–Turbojets) MLB LENDS AR16 ILM	
	or	
	(Water–Turbojets) MLB ETECK AR18 DIW	
Wilmington (ILM)	(Water–Turbojets) MLB LENDS AR16	
From ORLANDO EXECUTIVE (ORL) only		
Albany (ALB)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JOANI LGA LGA055 TRUDE V487 CANAN V130	
Atlanta (ATL)	J53 CRG DBN SINCA–STAR	
	or	
	(RNAV only) J53 CRG DBN CANUK RNAV–STAR	
Baltimore (BWI)	(Water–Turbojets) MLB LENDS AR16 ILM J40 RIC OTT–STAR	1100–0400
	or	
	J53 CRG J51 SAV J55 CHS J79 TYI J40 RIC OTT–STAR	1100–0400
Bedford (BED)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
	or	
	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Beverly (BVY)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
	or	
	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Bridgeport (BDR)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
Charlotte (CLT)	J53 CRG J51 SAV J207 FLO CTF–STAR	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) J53 CRG J51 SAV HUSTN (RNAV)–STAR	
Cincinnati (CVG)	(RNAV only) J53 CRG J45 ATL J43 VXV JAKIE (RNAV)–STAR	

Terminals	Route	Effective Times (UTC)
	or	
	(all others) J53 CRG J45 ATL J43 VXV HARDU–STAR	
Cleveland (CLE)	J53 SPA J85 TVT040 KEATN KEATN–STAR	
Columbus (CMH)	J53 SPA J85 HVQ HNN BREMN–STAR	
Dallas/Ft. Worth (DFW)	PIE REMIS Q100 REDFN Q105 HRV J58 AEX CQY	
Danbury (DXR)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED–STAR	
Denver (DEN)	CTY SZW J41 MEM RZC PER GCK J154 RYLIE DANDD–STAR	
Detroit/Wayne (DTW)	VXV J91 HNN WEEDA–STAR	
Detroit Satellites: Detroit (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB)	J53 CRG J45 ATL J91 VXV J43 FLM DQN CRUXX–STAR	1100–0400
	or	
	J53 IRQ J85 DJB LLEEO–STAR	
East Hampton (HTO)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 HTO	
Farmingdale (FRG)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	
Hartford (HFD)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD V1	
Indianapolis (IND)	J53 CRG J45 ATL J89 IIU DECEE–STAR	
Islip (ISP)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SARDI CCC	
Kennedy (JFK)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	0700–0000
	or	
	J53 CRG J51 SAV J55 CHS J121 SIE CAMRN–STAR	
La Guardia (LGA)	(Water–Turbojets) MLB LENDS AR16 ILM J40 TYI HPW J191 PXT KORRY–STAR	1100–0300
	or	
	J53 CRG J51 SAV J207 RDU J55 HPW J191 PXT KORRY–STAR	1100–0300
Lawrence (LWM)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
	or	
	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Louisville (SDF)	CTY J91 ATL HCH DARBY–STAR	
Manchester (MHT)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK ALB EEN	
Minneapolis (MSP)	CTY J91 ATL J89 BAE EAU–STAR	1100–0400
Montreal (CYUL)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK J37 ALB J6 PLB ABCOT–STAR	
Nantucket (ACK)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO V46	
Nashville (BNA)	CTY J91 ATL VOLLS–STAR	1100–0400
Newark (EWR)	(GPS or DME/DME–IRU equipped–WATER) MLB LENDS AR16 ILM J109 FAK PHLBO (RNAV)–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) J53 CRG J51 SAV J207 FLO J55 J51 FAK PHLBO (RNAV)–STAR	1100–0400
Newburgh (SWF)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR	
New Haven (HVN)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
New London (GON)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 HTO	

Terminals	Route	Effective Times (UTC)
Philadelphia (PHL)	(Water–Turbojets) J53 CRG J55 CHS J121 SWL SWL034 RADDS VCN–STAR	1100–0400
Pittsburgh (PIT)	CRG J51 CAE PSK EKN IHD NESTO–STAR	1100–0400
Poughkeepsie (POU)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR	
Providence (PVD)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO JORDN (RNAV)–STAR	
Springfield (CEF)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 VILLS DPK DPK–STAR	
St. Louis (STL)	CTY SZW J41 VUZ J151 VISQA QBALL–STAR	1100–0400
Toronto (CYYZ)	(Water–Turbojets) MLB LENDS AR16 ILM J109 BUF YOUTH–STAR	
Washington Natl (DCA)	(Water–Turbojets–GPS or DME/DME–IRU equipped) MLB LENDS AR16 ILM J40 RIC OJAAY (RNAV)–STAR or (Water–Turbojets) MLB LENDS AR16 ILM J40 RIC IRONS–STAR	
Washington Dulles (IAD)	(Water–GPS or DME/DME–IRU equipped) MLB LENDS AR16 ILM J109 FAK BARLIN –STAR or (Water) MLB LENDS AR16 ILM J109 FAK COATT–STAR	
Westfield (BAF)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 VILLS DPK DPK–STAR	
Westhampton Beach (FOK)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 HTO	
White Plains (HPN)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE BOUNO–STAR or (Water–Turboprops) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED–STAR	
Windsor Locks (BDL)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 VILLS DPK DPK–STAR	
Worcester (ORH)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD	
From ORLANDO INTL (MCO) only		
Atlanta (ATL)	MCOY–DP AMG SINCA–STAR or (RNAV only) JAGUAR–DP DBN CANUK (RNAV)–STAR	1100–0400 1100–0400
Baltimore (BWI)	MCOY–DP SAV J55 CHS J79 TYI J40 RIC OTT–STAR or (Water–Turbojets) MLB LENDS AR16 ILM J40 RIC OTT–STAR	1100–0400
Bedford (BED)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR or (Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Beverly (BVY)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR or (Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Boston (BOS)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK ORW–STAR or MCOY–DP SAV J55 CHS J79 JFK ORW–STAR	1100–0300 1100–0300
Bridgeport (BDR)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	

Terminals	Route	Effective Times (UTC)
Charlotte (CLT)	MCOY–DP SAV J207 FLO CTF–STAR	
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) MCOY–DP SAV HUSTN (RNAV)–STAR	
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)–STAR	1100–0400
	or	
	(non–advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	1100–0400
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)–STAR	1100–0400
	or	
	(non–advanced RNAV only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX–STAR	1100–0400
Cincinnati (CVG)	(RNAV only) MCCOY-DP AMG J45 ATL J43 VXV JAKIE (RNAV)–STAR	
	or	
	(all others) MCOY–DP AMG J45 ATL J43 VXV HARDU–STAR	1100–0400
Columbus (CMH)	MCOY–DP IRQ J53 SPA J85 HVQ HNN BREMN–STAR	1100–0400
Danbury (DXR)	(WATER–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED–STAR	
Detroit/Wayne (DTW)	JAGUAR–DP IRQ J53 SPA HNN WEEDA–STAR	
Detroit Satellites: Detriot (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB)	JAGUAR–DP IRQ J85 DJB LLEEO–STAR	
Fort Myers (FMY, RSW)	LBV	
Hartford (HFD)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD V1	
Indianapolis (IND)	CTY J91 ATL J89 IIU DECEE–STAR	1100–0400
Islip (ISP)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SARDI CCC	
Kennedy (JFK)	(Water) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	
	or	
	MCOY–DP SAV J55 CHS J121 SIE CAMRN–STAR	
La Guardia (LGA)	MCOY–DP SAV J207 RDU J55 HPW J191 PXT ENO–STAR	1100–0300
	or	
	(Water–Turbojets) MLB LENDS AR16 ILM J40 TYI HPW J191 PXT ENO–STAR	
Lawrence (LWM)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
	or	
	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Louisville (SDF)	CTY J91 ATL HCH DARBY–STAR	1100–0400
Minneapolis (MSP)	(all others) CTY VUZ ALO KASPR–STAR	
	or	
	(/E, /G, /R, /J, /L, /Q) WEBSS BRUTS Q110 FEONA VUZ ALO KASPR–STAR	
Montreal (CYUL)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK J37 ALB J6 PLB ABCOT–STAR	
Nantucket (ACK)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO V46	
Nashville (BNA)	CTY J91 ATL VOLLS–STAR	1100–0400

Terminals	Route	Effective Times (UTC)
Newark (EWR)	(Water–Turbojets) MLB LENDS AR16 ILM J109 FAK DYLIN–STAR	
	or	
	MCOY–DP SAV J207 FLO J55 J51 FAK DYLIN–STAR	
	or	
	J53 CRG J51 SAV J207 FLO J55 J51 FAK DYLIN–STAR	1100–0400
	or	
	(Turbojets–WATER) MLB LENDS AR16 ILM J109 FAK DYLIN–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) MCCOY SAV J207 FLO J55 J51 FAK PHLBO (RNAV)–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped–WATER) MLB LENDS AR16 ILM J109 FAK PHLBO (RNAV)–STAR	1100–0400
Newburgh (SWF)	(Water–Turbojets)–MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR	
New Haven (HVN)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
New London (GON)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 HTO	
Philadelphia (PHL)	(Turbojets) MCOY–DP SAV J55 CHS J121 SWL SWL034 RADDS VCN–STAR	1100–0400
	or	
	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL RADDS VCN–STAR	
Pittsburgh (PIT)	MCOY–DP SAV J51 CAE PSK EKN IHD NESTO–STAR	1100–0400
Poughkeepsie (POU)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR	
Providence (PVD)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO JORDN (RNAV)–STAR	
Springfield (CEF)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 VILLS DPK DPK–STAR	
St. Louis (STL)	CTY J151 VISQA QBALL–STAR	
	or	
	(/E, /G, /R, /J, /L, /Q) WEBBS BRUTS Q110 FEONA VUZ J151 VISQA QBALL–STAR	
Toronto (CYYZ)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK CFB J95 BUF YOUTH–STAR	
Washington Dulles (IAD)	MCOY–DP SAV J55 CHS J165 J109 FAK COATT–STAR	1100–0300
Westfield (BAF)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 VILLS DPK DPK–STAR	
West Palm Beach (PBI)	(Turbojets–GPS or DME/DME–IRU equipped) DEARY VRB FRWAY (RNAV)–STAR	
	or	
	DEARY VRB TUXXI–STAR	
PALM BEACH METRO AREA (PBI, BCT, LNA, UTX, SUA)		
Albany (ALB)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JOANI LGA LGA055 TRUDE V487 CANAN V130	
Atlanta (ATL)	(RNAV only) ORL J81 CHESN CANUK (RNAV)–STAR	1100–0300
	or	
	ORL J81 CHESN SINCA–STAR	1100–0300
Baltimore (BWI)	(Water–Turbojets) A699 PERMT AR16 ILM J40 RIC OTT–STAR	
	or	

Terminals	Route	Effective Times (UTC)
	ORL CRG J51 SAV J55 CHS J79 TYI J40 RIC OTT–STAR	1100–0300
	or	
	(Water–Turbojets–GPS or DME/DME–IRU equipped) A699 PERMT AR16 ILM J40 RIC RAVNN (RNAV)–STAR	
	or	
	(GPS or DME/DME–IRU equipped) ORL CRG J51 SAV J55 CHS J79 TYI J40 RIC RAVNN (RNAV)–STAR	1100–0300
Bedford (BED)	(Water–ALT–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
	or	
	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
Beverly (BVY)	(Water–ALT–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
	or	
	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
Boston (BOS)	(Water–Turbojets) A699 PERMT AR16 KEMPR SBY J79 JFK ORW–STAR	1100–0300
	or	
	ORL J53 CRG J51 SAV J55 CHS J79 JFK ORW–STAR	1100–0400
Bridgeport (BDR)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
Charlotte (CLT)	ORL J53 CRG J51 SAV J207 FLO CTF–STAR	
	or	
	(Turbojets–GPS or DME/DME IRU equipped) ORL J53 CRG J51 SAV HUSTN (RNAV)–STAR	
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)–STAR	1100–0300
	or	
	(non–advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	1100–0400
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)–STAR	1100–0300
	or	
	(non–advanced RNAV only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX–STAR	1100–0300
Cincinnati (CVG)	(All Others) CTY J91 VXV HARDU–STAR	1100–0300
	or	
	(RNAV only) CTY J91 VXV JAKIE (RNAV)–STAR	
Cleveland (CLE)	ORL J53 SPA J85 TVT040 KEATN KEATN–STAR	1100–0300
Columbus (CMH)	ORL J81 IRQ J53 SPA J85 HVQ HNN BREMN–STAR	1100–0300
Cross City (CTY)	LAL	1030–0300
Dallas/Ft Worth (DFW)	SRQ Q100 REDFN Q105 HRV J58 AEX CQY	
Danbury (DXR)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED–STAR	
Daytona Beach (DAB)	MLB	1030–0300
Denver (DEN)	SRQ Q100 REDFN Q105 HRV J58 SPS J168 LAA QUAIL–STAR	
	or	
	CTY SZW J41 MEM RZC PER GCK J154 RYLIE DANDD–STAR	
Detroit/Wayne (DTW)	ORL J53 SPA HNN WEEDA–STAR	
Dixon (DIW)	(Water–Turbojets) WOLFO AR18	

Terminals	Route	Effective Times (UTC)
East Hampton (HTO)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 HTO	
Farmingdale (FRG)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	
Fort Myers (RSW)	RSW	1030–0300
Groton (GON)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 HTO	
Hartford (HFD)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD V1	
Houston (HOU)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) LAL J73 SZW J2 SJI COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS–STAR	1000–0300
Houston (IAH)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV WOLDE (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) LAL J73 SZW J2 SJI WOLDE (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS–STAR	1000–0300
Indianapolis (IND)	CTY J91 ATL J89 IIU DECEE–STAR	1100–0300
Islip (ISP)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SARDI CCC	
Jacksonville (JAX)	ORL J53	1030–0300
Kennedy (JFK)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE J121 SIE CAMRN–STAR	1100–0300
	or	
	ORL J53 CRG J51 SAV J55 CHS J121 SIE CAMRN–STAR	1000–0300
La Guardia (LGA)	(Water–Turbojets) A699 PERMT AR16 ILM J40 TYI HPW J191 PXT KORRY–STAR	
	or	
	ORL J53 CRG J51 SAV J207 RDU J55 HPW J191 PXT KORRY–STAR	1100–0400
Lawrence (LWM)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
	or	
	(Water–ALT–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Louisville (LOU)	CTY J91 ATL HCH DARBY–STAR	1100–0300
Manchester (MHT)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK ALB EEN	
Minneapolis (MSP)	CTY J91 ATL J89 BAE EAU–STAR	1100–0300
Montreal (CYUL)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK J37 ALB J6 PLB ABCOT–STAR	
Nashville (BNA)	CTY J91 ATL GQO VOLLS–STAR	1100–0300
Nantucket (ACK)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO V46	
Newark (EWR)	(Water–GPS or DME/DME–IRU equipped) A699 PERMT AR16 ILM J109 FAK PHLBO (RNAV)–STAR	
	or	
	ORL J53 CRG J51 SAV J207 FLO J55 J51 FAK DYLIN–STAR	1100–0300
	or	
	(WATER) A699 PERMT AR16 ILM J109 FAK DYLIN–STAR	
	or	

Terminals	Route	Effective Times (UTC)
	(GPS or DME/DME–IRU equipped) ORL J53 CRG J51 SAV J207 FLO J55 J51 FAK PHLBO (RNAV)–STAR	1100–0300
Newburgh (SWF)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR	
New Haven (HVN)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
Ocala (OCF)	LAL	1030–0300
Orlando (MCO)	BAIRN GOOFY–STAR	1030–0300
Overwater Routes to the Northeast	(Water) A699 PERMT AR16 ILM or WOLFO AR18 DIW	1030–0300
Philadelphia (PHL)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL RADDS VCN–STAR or ORL J53 CRG J51 SAV J55 CHS J121 SWL SWL034 RADDS VCN–STAR	1100–0300
Pittsburgh (PIT)	ORL J53 CRG J51 CAE PSK EKN IHD NESTO–STAR	
Poughkeepsie (POU)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR	
Providence (PVD)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO JORDN (RNAV)–STAR	
Raleigh/Durham (RDU)	(Water–Turbojets) A699 PERMT AR16 ILM BRADE–STAR or ORL J53 CRG J51 SAV J55 CHS J174 ILM BRADE–STAR	1100–0400
St. Louis (STL)	TBIRD CTY J151 VISQA QBALL–STAR or (/E,/G,/R,/J,/L,/O) TBIRD KPASA Q110 FEONA VUZ J151 VISQA QBALL–STAR	
Springfield (CEF)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 VILLS DPK DPK–STAR	
Tallahassee (TLH)	LAL	1030–0300
Tampa (TPA)	LBV BRDGE–STAR or	1030–0300
	BRDGE BRDGE–STAR or	1030–0300
	(GPS or DME/DME–IRU equipped) DEAKK DEAKK (RNAV)–STAR or	1000–0300
	(GPS or DME/DME–IRU equipped) DEAKK DEAKK (RNAV)–STAR	1030–0300
Toronto (CYYZ)	(Water–Turbojets) A699 PERMT AR16 ILM J109 BUF YOUTH–STAR	
Washington Dulles (IAD)	(Water–GPS or DME/DME–IRU equipped) A699 PERMT AR16 ILM J109 FAK BARIN–STAR or (Water) A699 PERMT AR16 ILM J109 FAK COATT–STAR or (GPS or DME/DME–IRU equipped) ORL J53 CRG J51 SAV J207 RDU FAK BARIN–STAR or ORL J53 CRG J51 SAV J207 RDU FAK COATT–STAR	
Washington Natl (DCA)	(Water) A699 PERMT AR16 ILM J40 RIC IRONS–STAR or (Water–Turbojets–GPS or DME/DME–IRU equipped) A699 PERMT AR16 ILM J40 RIC OJAAY (RNAV)–STAR	
Westfield (BAF)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 VILLS DPK DPK–STAR	

Terminals	Route	Effective Times (UTC)
Westhampton Beach (FOK)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 HTO	
White Plains (HPN)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE BOUNO–STAR or (Water–Turboprops) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED–STAR	
Wilmington (ILM)	(Water–Turbojets) A699 PERMT AR16	
Windsor Locks (BDL)	(Water–Turbojets) PERMT A699 AR16 ILM KEMPR SBY J179 VILLS DPK DPK–STAR	
Worcester (ORH)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD	
PENSACOLA (PNS)		
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) MGM RESPE GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)–STAR or (non–advanced RNAV only) MGM RESPE GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX–STAR	0000–2359 0000–2359
Houston (HOU)	(GPS or DME/DME–IRU equipped) ROMMY HRV COLUMBIA (RNAV)–STAR or (Non–advanced NAV only) SJI AEX DAS–STAR	1000–0300 1000–0300
Houston (IAH)	(GPS or DME/DME–IRU equipped) ROMMY HRV WOLDE (RNAV)–STAR or (Non–advanced NAV only) SJI AEX DAS–STAR	1000–0300 1000–0300
PORT AU PRINCE (MTPP)		
Atlanta (ATL)	(if unable FL370 by CVIKK) JOSES A315 ZIN FLL ORL CRG SINCA–STAR or ALBBE A636 ZIN FLL ORL CRG CANUK (RNAV)–STAR or (if unable FL370 by CVIKK) ALBBE A636 ZIN FLL ORL CRG SINCA–STAR or (if unable FL370 by CVIKK) JOSES A315 ZIN FLL ORL CRG CANUK (RNAV)–STAR	
Kennedy (JFK)	BOTES G444 GTK M594 CERDA LUCTI L454 OWENZ CAMRN or BOTES G444 GTK M594 CERDA L453 AZEZU BERGH L454 OWENZ CAMRN or BOTES G444 GTK L452 OXANA AR8 ECG ORF J121 SIE CAMRN–STAR or JOSES A315 ZIN A756 DUKKY A555 ZQA AR3 PANAL DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	
Newark (EWR)	ALBBE M594 CERDA LUCTI L454 BERGH L454 OWENZ CYN GXU RBV V249 METRO or ALBBE M594 GTK L452 OXANA AR8 ECG FAK DYLIN–STAR or ALBBE M594 GTK L452 OXANA AR8 ECG FAK PHLBO (RNAV)–STAR	
RALEIGH–DURHAM (RDU)		
Albany (ALB)	TYI J79 SBY J79 JOANI LGA LGA055 V487 V130	1100–0400
Atlanta (ATL)	PACKK–DP AZELL CAE J4 IRQ SINCA–STAR or	1100–0400

Terminals	Route	Effective Times (UTC)
	(RNAV only) PACKK–DP AZELL CAE J4 IRQ CANUK RNAV–STAR	1100–0400
Boston (BOS)	TYI J79 JFK ORW–STAR	
Chicago Midway (MDW)	PACKK–DP AZELL PSK HVQ FWA GOSHEN–STAR	1100–0400
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) PACKK–DP AZELL HMV FLM HEVAN MZZ ROYKO (RNAV)–STAR	1100–0400
	or	
	(non–advanced RNAV only) PACKK–DP AZELL HMV FLM HEVAN MZZ MZZ344/33 OXI KNOX–STAR	1100–0400
Cincinnati (CVG)	(RNAV only) HMV JAKIE (RNAV)–STAR	
	or	
	(all others) HMV HARDU–STAR	
Columbia (CAE)	FAY–DP FAY FLO	1100–0400
Dallas/Ft Worth (DFW)	PACKK–DP AZELL SPA J14 VUZ J52 SQS CQY	1100–0400
Detroit/Wayne (DTW)	AZELL PSK BKW GEMNI–STAR	
Fort Lauderdale (FLL)	(Turbojets–GPS or DME/DME–IRU equipped) TARL–DP CHS J79 OMN FISEL (RNAV)–STAR	
	or	
	(Water–Turbojets–GPS or DME/DME–IRU equipped) TARL–DP CLB BAHAA AR21 CRANS FISEL (RNAV)–STAR	
	or	
	(Turbojets) TARL–DP CHS J79 OMN GISSH–STAR	
	or	
	(Water–Turbojets) TARL–DP CLB BAHAA AR21 CRANS HIILL FATHR GISSH–STAR	
	or	
	(Turboprops) TARL–DP CHS J79 OMN MLB BLUFI–STAR	
	or	
	(Water–Turboprops–GPS or DME/DME–IRU equipped) TARL–DP CLB BAHAA AR21 CRANS FISEL (RNAV)–STAR	
	or	
	(Water–Turboprops) TARL–DP CLB BAHAA AR21 CRANS HIILL FATHR GISSH–STAR	
Houston (HOU)	(GPS or DME/DME–IRU equipped) VUZ JAN AEX ROKIT (RNAV)–STAR	
	or	
	(Non–advanced NAV only) VUZ JAN AEX DAS–STAR	
Houston (IAH)	(Turbojets–GPS or DME/DME–IRU equipped) VUZ JAN AEX TXMEX (RNAV)–STAR	
	or	
	(Non–advanced NAV only) VUZ JAN AEX DAS–STAR	
Kennedy (JFK)	TYI ORF J121 SIE CAMRN–STAR	1100–0400
La Guardia (LGA)	LVL HPW J191 PXT KORRY–STAR	
Miami (MIA)	(Turbojets–GPS or DME/DME–IRU equipped) TARL–DP CHS J79 OMN HILEY (RNAV)–STAR	
	or	
	(Water–Turbojets–GPS or DME/DME–IRU equipped) TARL–DP CLB SEELO AR22 JORAY HILEY (RNAV)–STAR	
	or	
	(Turbojets) TARL–DP CHS J79 OMN ANNEY–STAR	
	or	
	(Water–Turbojets) TARL–DP CLB SEELO AR22 JORAY OSOGY ENVOY YOSSI MILSY BOYUR HILEY KAINS	
	or	
	(Turboprops) TARL–DP CHS J79 OMN ANNEY–STAR	
Newark (EWR)	LVL FAK DYLIN–STAR	1100–0300
	or	

Terminals	Route	Effective Times (UTC)
	(GPS or DME/DME–IRU equipped) LVL FAK PHLBO (RNAV)–STAR	1100–0300
Newburgh (SWF)	TYI J79 JFK BDR V91 STUBY	1100–0300
Orlando (MCO)	(Turbojets) TARL–DP CHS J79 OMN BITHO–STAR or (GPS or DME/DME–IRU equipped) TARHEEL–DP CHS J79 OMN CWRLD (RNAV)–STAR	1100–0400 1100–0400
Orlando (ORL)	(Turbojets) TARL–DP CHS J79 OMN CORLL–STAR	1100–0400
Palm Beach (PBI)	(Turbojets–GPS or DME/DME–IRU equipped) TARL–DP CHS J79 OMN FRWAY (RNAV)–STAR or (Turbojets) TARL–DP CHS J79 OMN TUXXI–STAR or (Water–Turbojets–GPS or DME/DME–IRU equipped) TARL–DP CLB SEELO AR19 AYBID CAYSL (RNAV)–STAR or (Water–Turbojets) TARL–DP CLB SEELO AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL	1100–0400
Philadelphia (PHL)	V3 FAK DPNT–STAR	1100–0400
Pittsburgh (PIT)	PACK–DP ROA EKN IHD NESTO–STAR	1100–0400
Sarasota (SRQ)	FAY–DP FAY CAE J75 TAY J85 GNV LAL	1100–0400
Savannah (SAV)	TARL–DP CHS	1100–0400
Tampa (TPA)	FAY–DP FAY CAE J75 TAY LZARD–STAR or (GPS or DME/DME–IRU equipped) FAY–DP FAY CAE J75 TAY DADES (RNAV)–STAR	1100–0400 1100–0400
Windsor Locks (BDL)	TYI J79 SBY J79 JFK DPK–STAR	1100–0400
SAN JUAN (TJSJ)		
Atlanta (ATL)	HARDE A555 ZQA FLL ORL CRG CANUK (RNAV)–STAR or HARDE A555 ZQA FLL ORL CRG SINCA–STAR or CONCH R507	
Atlantic City (ACY)	ELMUC L451 LETON L451 OLDEY AR3 PANAL DIW WETRO CEBEE SWL J121 SIE	
Baltimore (BWI)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG RIC NOTTINGHAM–STAR or ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG RIC RAVNN (RNAV)–STAR or ELMUC L451 OLDEY AR3 CLB ILM J40 RIC NOTTINGHAM–STAR or ELMUC L451 OLDEY AR3 CLB ILM J40 RIC RAVNN (RNAV)–STAR	
Bedford (BED)	ELMUC L454 LUCTI OWENZ HTO ORW GRAYM–STAR or ELMUC L451 CERDA L453 AZEZU BERGH OWENZ HTO ORW GRAYM–STAR or ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR or ELMUC L451 LETON L451 OLDEY AR3 CLB DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Charlotte (CLT)	ELMUC L451 OLDEY CHS CHESTERFIELD–STAR or ELMUC L451 OLDEY CHS HUSTN (RNAV)–STAR	

Terminals	Route	Effective Times (UTC)
Cincinnati (CVG)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG VXV JAKIE (RNAV)–STAR	
	or	
	ELMUC L451 OLDEY METTA CHS SPA CAE VXV JAKIE (RNAV)–STAR	
Cleveland (CLE)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG HVQ TVT KEATN–STAR	
	or	
	ELMUC L451 OLDEY METTA CHS CAE HVQ TVT KEATN–STAR	
Dayton (DAY)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG VXV J43 FLM KEKEE–STAR	
	or	
	ELMUC L451 OLDEY METTA CHS CAE VXV J43 FLM KEKEE–STAR	
Detroit (DTW)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG HNN WEEDA–STAR	
	or	
	ELMUC L451 OLDEY METTA CHS SPA HNN WEEDA–STAR	
Indianapolis (IND)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG IIU V51 DECEE DECEE–STAR	
	or	
	ELMUC L451 OLDEY METTA CHS SPA CAE VXV J89 IIU V51 DECEE DECEE–STAR	
Kennedy (JFK)	ELMUC L454 LUCTI L454 OWENZ CAMRN	
	or	
	ELMUC L453 LAMER L453 AZEZU BERGH L454 OWENZ CAMRN	
	or	
	ELMUC L451 OLDEY AR3 PANAL DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	
Louisville (SDF)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG HCH DARBY–STAR	
	or	
	ELMUC L451 OLDEY METTA CHS SPA HCH DARBY–STAR	
Newark (EWR)	ELMUC L451 OLDEY AR3 CLB ILM J109 FAK DYLIN–STAR	
	or	
	ELMUC L451 OLDEY AR3 CLB ILM J109 FAK PHLBO (RNAV)–STAR	
	or	
	ELMUC L454 LUCTI L454 BERGH L454 OWENZ CYN GXU RBV V249 METRO	
	or	
	ELMUC L451 CERDA L453 AZEZU BERGH L454 OWENZ CYN GXU RBV V249 METRO	
Ottawa (CYOW)	ELMUC L454 LUCTI L454 JFK SYR J599	
	or	
	ELMUC L451 CERDA L453 AZEZU BERGH L454 JFK SYR J599	
	or	
	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG SYR J599	
	or	
	ELMUC L451 OLDEY AR3 CLB ILM SYR J599	
Providence (PVD)	ELMUC L454 LUCTI L454 BERGH OWENZ HTO JORDN	
	or	
	ELMUC L451 CERDA L453 AZEZU BERGH OWENZ HTO JORDN	
	or	
	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG SWL J174 HTO JORDN	
	or	

Terminals	Route	Effective Times (UTC)
	ELMUC L451 OLDEY AR3 PANAL DIW SWL J174 HTO JORDN	
Quebec (CYQB)	ELMUC L454 LUCTI L454 JFK PLB J560 or ELMUC L451 CERDA L453 AZEZU BERGH L454 JFK PLB J560 or ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG ORF SBY J209 VILLS SAX J6 PLB J560 or ELMUC L451 OLDEY AR3 PANAL DIW J174 ORF SBY J209 VILLS SAX J6 PLB J560	
Raleigh–Durham (RDU)	ELMUC L451 OLDEY ILM BRADE–STAR	
Teterboro (TEB)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG FAK JAIKE (RNAV)–STAR or ELMUC L451 CERDA L453 AZEZU BERGH L454 OWENZ or ELMUC L454 LUCTI L454 OWENZ or ELMUC L451 OLDEY AR3 CLB ILM J109 FAK JAIKE (RNAV)–STAR	
Washington (DCA)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG RIC IRONS–STAR or ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG RIC OJAAY (RNAV)–STAR or ELMUC L451 OLDEY AR3 CLB ILM J40 RIC IRONS–STAR or ELMUC L451 OLDEY AR3 CLB ILM J40 RIC OJAAY (RNAV)–STAR	
Washington (IAD)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG FAK BARIN (RNAV)–STAR or ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG FAK COATT–STAR or ELMUC L451 OLDEY AR3 CLB ILM J109 FAK BARIN (RNAV)–STAR or ELMUC L451 OLDEY AR3 CLB ILM J109 FAK COATT–STAR	
White Plains (HPN)	ELMUC L454 LUCTI L454 OWENZ or ELMUC L451 CERDA L453 AZEZU BERGH L454 OWENZ or ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG ORF J121 SIE BOUNO–STAR or ELMUC L451 OLDEY ECG ORF J121 SIE BOUNO–STAR	
Winsor Locks (BDL)	ELMUC L454 LUCTI L454 JFK DBK DEER PARK–STAR or ELMUC L451 LETON L451 OLDEY AR3 CLB ILM KEMPR SBY J79 JFK DPK DEER PARK–STAR or ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK DPK DEER PARK–STAR	
Winnipeg (CYWG)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG IIU J99 BAE MSP or	

Terminals	Route	Effective Times (UTC)
	ELMUC L451 OLDEY METTA CHS VXV J89 IIU J99 BAE MSP	
SANTO DOMINGO SPECIAL AREA (MDSD, MDPC, MDLR, MDST, MDPP, MDJB, MDCT)	[ATTENTION: Routes over JUELE fix are for aircraft that are not HF equipped, not deep over water equipped or do not want to file deep oceanic routes. Also, for aircraft with destinations to Florida airports please see Special High Altitude Directional Routes.]	
Altantic City (ACY)	BESAS L464 CERDA L451 OLDEY AR3 CLB DIW WETRO CEBEE SWL J121 SIE	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SWL J121 SIE	
	or	
	(Non–HF equipped) JUELE L463 NUCAR AR3 CLB DIW WETRO CEBEE SWL J121 SIE	
Baltimore (BWI)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC NOTTINGHAM–STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC RAVNN (RNAV)–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CBL ILM J40 RIC NOTTINGHAM–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CBL ILM J40 RIC RAVNN (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J40 RIC NOTTINGHAM–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J40 RIC RAVNN (RNAV)–STAR	
Bangor (BGR)	BESAS L464 CERDA LUCTI L454 BERGH HTO LFV J79	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH OWENZ HTO LFV J79	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK HTO LFV	
Bedford (BED)	BESAS L464 CERDA L451 OLDEY AR3 CLB DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH OWENZ HTO ORW GRAYM–STAR	
	or	
	BESAS L464 CERDA LUCTI L454 BERGH OWENZ HTO ORW GRAYM–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Boston (BOS)	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM KEMPR SBY J79 JFK NORWICH–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM KEMPR SBY J49 JFK INNDY (RNAV)–STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK INNDY (RNAV)–STAR	
	or	

Terminals	Route	Effective Times (UTC)
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK NORWICH–STAR	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK NORWICH–STAR	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK INNDY (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM KEMPR SBY J79 JFK NORWICH–STAR	
Charlotte (CLT)	BESAS L464 CERDA L451 OLDEY CHS CHESTERFIELD–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY CHS HUSTN (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 OLDEY CHS CHESTERFIELD–STAR	
	or	
	JUELE L463 NUCAR AR3 OLDEY CHS HUSTN (RNAV)–STAR	
Chicago O'Hare (ORD)	JUELE L463 NUCAR AR3 OLDEY AR4 CH SPA HMV FLM J24 BIGXX ROYKO (RNAV)–STAR	
Cincinnati (CVG)	BESAS L464 CERDA L451 OLDEY METTA CHS SPA HMV JAKIE (RNAV)–STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK J24 HVQ HNN JAVIT–STAR	
	or	
	JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA HMV JAKIE (RNAV)–STAR	
Cleveland (CLE)	BESAS L464 CERDA L451 OLDEY METTA CHS CAE HVQ TVT KEATN–STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HVQ TVT KEATN–STAR	
	or	
	JUELE L463 NUCAR AR3 OLDEY METTA CHS CAE HVQ TVT KEATN–STAR	
Dayton (DAY)	BESAS L464 CERDA L451 OLDEY METTA CHS CAE SPA HMV FLM KEKEE–STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK J24 HVQ HNN	
	or	
	JUELE L463 NUCAR AR3 OLDEY METTA CHS CAE SPA HMV FLM KEKEE–STAR	
Detroit (DTW)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HNN WEEDA–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY METTA CHS SPA HNN WEEDA–STAR	
	or	
	JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA HNN WEEDA–STAR	
Indianapolis (IND)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG IIU V51 DECEE DECEE–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY METTA CHS SPA CAE VXV J89 IIU V51 DECEE DECEE–STAR	
	or	
	JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA CAE VXV J89 IIU V51 DECEE DECEE–STAR	
Kennedy (JFK)	BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZ CAMRN	

Terminals	Route	Effective Times (UTC)
	or BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG ORF J121 SIE CAMRN–STAR or BESAS L464 CERDA LUCTI L454 OWENZ CAMRN or BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR or JUELE L463 NUCAR AR3 PANAL DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	
La Guardia (LGA)	BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZ CAMRN or BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HPW J191 PXT KORRY–STAR or BESAS L464 CERDA LUCTI L454 OWENZ CAMRN or BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J40 TYI HPW J191 PXT KORRY–STAR or JUELE L463 NUCAR AR3 CLB ILM J40 TYI HPW J191 PXT KORRY–STAR	
Louisville (SDF)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HCH DARBY–STAR or BESAS L464 CERDA L451 OLDEY METTA CHS SPA HCH DARBY–STAR or JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA HCH DARBY–STAR	
Montreal (CYMX), (CYUL)	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK J37 ALB J6 PLB PLATTSBURGH–STAR or JUELE L463 NUCAR AR3 CLB ILM KEMPR SBY J79 JFK J37 ALB J6 PLB PLATTSBURGH–STAR	
Morristown (MMU)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK JAIKE (RNAV)–STAR or BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZ or BESAS L464 CERDA LUCTI L454 OWENZ or BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK JAIKE (RNAV)–STAR or JUELE L463 NUCAR AR3 CLB ILM J109 FAK JAIKE (RNAV)–STAR	
Newark (EWR)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK DYLIN–STAR or BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK PHLBO (RNAV)–STAR or BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZ CYN GXU RBV V249 METRO or BESAS L464 CERDA LUCTI L454 BERGH L454 OWENZ CYN GXU RBV V249 METRO or BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK DYLIN–STAR or	

Terminals	Route	Effective Times (UTC)
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK PHLBO (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 FAK DYLIN–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 FAK PHLBO (RNAV)–STAR	
Ottawa (CYOW)	BESAS L464 CERDA LUCTI L454 JFK SYR J599	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK SYR J599	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SYR J599	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM SYR J599	
	or	
	JUELE L463 NUCAR AR3 CLB ILM SYR J599	
Philadelphia (PHL)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SWL RADDS CEDAR LAKE–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW WETRO CEBEE SWL RADDS CEDAR LAKE–STAR	
	or	
	BESAS L464 LAMER L453 AZEZU B24 SIE	
Providence (PVD)	BESAS L464 CERDA LUCTI L454 BERGH OWENZ HTO JORDN	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH OWENZ HTO JORDN	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SWL J174 HTO JORDN	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW SWL J174 HTO JORDN	
	or	
	JUELE L463 NUCAR AR3 PANAL DIW SWL J174 HTO JORDN	
Quebec (CYQB)	BESAS L464 CERDA LUCTI L454 JFK PLB J560	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK PLB J560	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG ORF SBY J209 VILLS SAX J6 PLB J560	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW J174 ORF SBY J209 VILLS SAX J6 PLB J560	
	or	
	JUELE L463 NUCAR AR3 PANAL DIW J174 ORF SBY J209 VILLS SAX J6 PLB J560	
Raleigh/Durham (RDU)	BESAS L464 CERDA L451 OLDEY ILM BRADE–STAR	
	or	
	JUELE L463 NUCAR ILM BRADE–STAR	
Teterboro (TEB)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK JAIKE (RNAV)–STAR	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZ	
	or	
	BESAS L464 CERDA LUCTI L454 OWENZ	
	or	

Terminals	Route	Effective Times (UTC)
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK JAIKE (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 FAK JAIKE (RNAV)–STAR	
Toronto (CYYZ)	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK J63 HUO CFB J95 BUF YOUTH (RNAV)–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 BUF YOUTH (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 BUF YOUTH (RNAV)–STAR	
Washington (DCA)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC IRONS–STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC OJAAY (RNAV)–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J40 RIC IRONS–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J40 RIC OJAAY (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J40 RIC IRONS–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J40 RIC OJAAY (RNAV)–STAR	
Washington (IAD)	BESAS L464 CERDA LNHOM L452 OXANA ECG FAK BARIN (RNAV)–STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA ECG FAK COATT–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK BARIN (RNAV)–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK COATT–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 FAK BARIN (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 FAK COATT–STAR	
White Plains (HPN)	BESAS L464 CERDA L451 OLDEY ECG ORF J121 SIE BOUNO–STAR	
	or	
	JUELE L463 NUCAR AR3 PANAL DIW WETRO CEBEE SWL J121 SIE BOUNO–STAR	
	or	
	BESAS L464 CERDA LUCTI L454 OWENZ	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZ	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG ORF J121 SIE BOUNO–STAR	
Windsor Locks (BDL)	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM KEMPR SBY J79 JFK DPK DPK–STAR	
	or	

Terminals	Route	Effective Times (UTC)
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK DPK DPK–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM KEMPR SBY J79 JFK DPK DPK–STAR	
Winnipeg (CYWG)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG IIU J99 BAE MSP	
	or	
	BESAS L464 CERDA L451 OLDEY METTA CHS VXV J89 IIU J99 BAE MSP	
	or	
	JUELE L463 NUCAR AR3 OLDEY METTA CHS VXV J89 IIU J99 BAE MSP	
SARASOTA–BRADENTON AREA (SRQ)		
Baltimore (BWI)	TAY J75 CAE J52 RIC OTT–STAR	1100–0300
	or	
	(GPS or DME/DME–IRU equipped) TAY J75 CAE J52 RIC RAVNN (RNAV)–STAR	1100–0300
Charlotte (CLT)	TAY J85 IRQ UNARM–STAR	
	or	
	(Turbojets–GPS or DME/DME IRU equipped) TAY J85 IRQ ADENA (RNAV)–STAR	
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)–STAR	1100–0300
	or	
	(non–advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	1100–0300
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)–STAR	0000–2359
	or	
	(non–advanced RNAV only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX–STAR	0000–2359
Cincinnati (CVG)	(RNAV only) CTY J91 VXV JAKIE (RNAV)–STAR	
	or	
	(all others) CTY J91 VXV HARDU–STAR	
Cleveland (CLE)	PIE J119 TAY J85 TVT040 KEATN KEATN–STAR	
Columbus (CMH)	PIE J119 TAY J85 HVQ HNN BREMN–STAR	
Dallas/Ft. Worth (DFW)	(Water) SRQ Q100 REDFN Q105 HRV J58 AEX CQY	
Denver (DEN)	(Water) Q100 REDFN Q105 HRV J58 SPS J168 LAA QUAIL–STAR	
Detroit/Wayne (DTW)	PIE TAY J85 SPA HNN WEEDA–STAR	
Detroit Satellites: Ann Arbor (ARB), Pontiac (PTK), Willow Run (YIP)	PIE J119 TAY J85 IRQ J99 VXV J43 FLM DQN CRUXX–STAR	
Young (DET)	PIE J119 TAY J85 DJB LLEEO–STAR	
Fort Lauderdale (FLL)	(all others) RSW FORTL–STAR	1030–0300
	or	
	(GPS or DME/DME–IRU equipped) RSW FORTL JINGL (RNAV)–STAR	
Houston (HOU)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV COLUMBIA (RNAV)–STAR	
	or	
	(GPS or DME/DME–IRU equipped) SZW J2 SJI COLUMBIA (RNAV)–STAR	
	or	
	(Non–advanced NAV only) SZW J2 CEW J50 AEX DAS–STAR	
Houston (IAH)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV WOLDE (RNAV)–STAR	
	or	

Terminals	Route	Effective Times (UTC)
	(GPS or DME/DME–IRU equipped) SZW J2 SJI WOLDE (RNAV)–STAR	
	or	
	(Non–advanced NAV only) SZW J2 CEW J50 AEX DAS–STAR	
Indianapolis (IND)	CTY J91 ATL J89 IIU DECEE–STAR	
La Guardia (LGA)	TAY J75 DUNKN J210 VAN FLO J207 RDU J55 HPW J191 PXT KORRY–STAR	
Louisville (LOU, SDF)	CTY J91 ATL HCH DARBY–STAR	
Minneapolis (MSP)	CTY J91 ATL J89 BAE EAU–STAR	
Nashville (BNA)	CTY J91 ATL GQO VOLLS–STAR	1100–0300
Newark (EWR)	TAY J75 CAE J51 FAK DYLIN–STAR	1100–0300
	or	
	(GPS or DME/DME–IRU equipped) TAY J75 CAE J51 FAK PHLBO (RNAV)–STAR	1100–0300
Philadelphia (PHL)	TAY J75 CAE J51 FAK DPNT–STAR	
Pittsburgh (PIT)	TAY J75 CAE PSK J53 EKN IHD NESTO–STAR	
Windsor Locks (BDL)	TAY J75 DUNKN J210 J79 JFK DPK DPK–STAR	0700–0000
SAVANNAH (SAV)		
Baltimore (BWI)	CHS J79 TYI J40 RIC OTT–STAR	1100–0400
Philadelphia (PHL)	CHS J121 SWL SWL SWL034 RADDS VCN–STAR	1100–0400
Washington Dulles (IAD)	J207 RDU FAK COATT–STAR	
	or	
	(GPS or DME/DME–IRU equipped J207 RDU FAK BARIN–STAR	
TAMPA/ST PETERSBURG METRO AREA (TPA, SPG, PIE, TPF)		
Atlanta (ATL)	SZW LGC–STAR	
	or	
	(RNAV only) SZW HONIE (RNAV)–STAR	
Baltimore (BWI)	TAY J75 CAE J52 RIC OTT–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) TAY J75 CAE J52 RIC RAVNN (RNAV)–STAR	1100–0400
Boston (BOS)	TAY J75 DUNKN J210 J79 JFK ORW–STAR	1100–0400
Charlotte (CLT)	TAY J85 IRQ UNARM–STAR	
	or	
	(Turbojets–GPS or DME/DME IRU equipped) TAY J85 IRQ ADENA (RNAV)–STAR	
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)–STAR	1100–0300
	or	
	(non–advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	1100–0300
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK MZZ ROYKO (RNAV)–STAR	0000–2359
	or	
	(non–advanced RNAV only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX–STAR	0000–2359
Cincinnati (CVG)	(All Others) CTY J91 VXV HARDU–STAR	
	or	
	(RNAV only) CTY J91 VXV JAKIE (RNAV)–STAR	
Cleveland Metro (CLE)	PIE J119 TAY J85 TVT040 KEATN KEATN–STAR	
	or	
	CTY J91 HNN TVT KEATN–STAR	
Columbus (CMH)	PIE J119 TAY J85 HVQ HNN BREMN–STAR	
	or	
	CTY J91 HNN BREMN–STAR	
Denver (DEN)	SZW J41 MEM RZC PER GCK J154 RYLIE DANDD–STAR	
Detroit/Wayne (DTW)	TAY J85 SPA HNN WEEDA–STAR	
Detroit Satellites:		
Ann Arbor (ARB), Pontiac (PTK), Young (DET)	CTY J91 VXV J43 FLM DQN CRUXX–STAR	
Willow Run (YIP)	CTY J91 VXV J43 FLM DQN V98 VQQ CRUXX	

Terminals	Route	Effective Times (UTC)
Windsor (CYQG)	PIE J119 TAY J85 DJB LLEEO–STAR	
Fort Lauderdale: Hollywood Intl (FLL), Executive (FXE), Pompano Beach (PMP), North Perry (HWO), Opa Locka (OPF)	(all others) RSW FORTL–STAR	1030–0300
	or	
	(GPS OR DME/DME–IRU equipped) SABEE RXXAN JINGL (RNAV)–STAR	
Fort Myers (RSW), (FMY)	(Turbojets–GPS or DME/DME–IRU equipped) SRQ TYNEE (RNAV)–STAR	
Fort Pierce (FPR)	VRB	1030–0300
Houston (HOU)	(GPS or DME/DME–IRU equipped) SIMMR REMIS Q100 LEV COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) SZW J2 SJI COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) SZW J2 CEW J50 AEX DAS–STAR	1000–0300
Houston (IAH)	(GPS or DME/DME–IRU equipped) SIMMR REMIS Q100 LEV WOLDE (RNAV)–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) SZW J2 SJI WOLDE (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) SZW J2 CEW J50 AEX DAS–STAR	1000–0300
Indianapolis (IND)	CTY J91 ATL J89 IIU DECEE–STAR	
Kennedy (JFK)	TAY J75 J210 J121 SIE CAMRN–STAR	
Key West (EYW)	RSW J41	1030–0300
La Guardia (LGA)	TAY J75 DUNKN J210 VAN FLO J207 RDU J55 HPW J191 PXT KORRY–STAR	1100–0400
Louisville (SDF)	CTY J91 ATL HCH DARBY–STAR	
Miami (MIA)	(all others) RSW CYY CYY–STAR	1030–0300
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) RSW CYY SSCOT (RNAV)–STAR	
Minneapolis (MSP)	CTY J91 ATL J89 BAE EAU–STAR	
Nashville (BNA)	CTY J91 ATL GQO VOLLS–STAR	
Newark (EWR)	TAY J75 CAE J51 FAK DYLIN–STAR	1100–0400
	or	
	(GPS or DME/DME–IRU equipped) TAY J75 CAE J51 FAK PHLBO (RNAV)–STAR	1100–0400
Philadelphia (PHL)	TAY J75 CAE J51 FAK DPNT–STAR	1100–0400
Pittsburgh (PIT)	TAY J75 CAE PSK EKN IHD NESTO–STAR	
Raleigh–Durham (RDU)	TAY J75 CAE BUZZY–STAR	
Washington Dulles (IAD)	TAY J75 CAE J51 FAK COATT–STAR	1100–0400
Washington Natl (DCA)	TAY J75 CAE J52 RIC IRONS–STAR	1100–0400
	or	
	GPS or DME/DME–IRU equipped) TAY J75 CAE J52 RIC OJAAY (RNAV)–STAR	1100–0400
West Palm Beach (PBI)	(Turbojets–GPS or DME/DME–IRU equipped) SABEE JOOOE WLACE (RNAV)–STAR	
Windsor Locks (BDL)	TAY J75 DUNKN J210 J79 JFK DPK DPK–STAR	0700–0000
From St Petersburg (PIE) only:		
Detroit/Wayne (DTW)	TAY J85 SPA HNN WEEDA–STAR	
Detroit Satellites:		
Ann Arbor (ARB), Pontiac (PTK) Willow Run (YIP)	CTY J91 VXV J43 FLM DQN CRUXX–STAR	
Windsor (CYQG), Young (DET)	PIE J119 TAY J85 DJB LLEEO–STAR	

SPECIAL HIGH ALTITUDE ARRIVAL ROUTES FOR ATLANTA HARTSFIELD INTL ARPT (JETS AND TURBOPROPS)

NORTHEAST

Traffic originating North and East of J186 to North of a line from ATL to RDU file:

	MOL WHINZ–STAR
	or
	MOL FLCON (RNAV)–STAR
	J145 ODF WHINZ–STAR
	or
	J145 ODF FLCON (RNAV)–STAR
	VXV WHINZ–STAR
	or
	VXV FLCON (RNAV)–STAR
	J186 ODF WHINZ–STAR
	or
	J186 ODF FLCON (RNAV)–STAR
	SPA ODF WHINZ–STAR
	or
	SPA ODF FLCON (RNAV)–STAR

SOUTHEAST

Traffic originating South of a line from ATL to RDU, to East of J89 file:

	IRQ SINCA–STAR
	or
	IRQ CANUK (RNAV)–STAR
	DBN SINCA–STAR
	or
	DBN CANUK (RNAV)–STAR

SOUTHWEST

Traffic originating West of J89 to South and West of J14 file:

	MEI LGC–STAR
	or
	MEI HONIE (RNAV)–STAR
	SZW LGC–STAR
	or
	SZW HONIE (RNAV)–STAR
I	MGM LGC–STAR
	or
	MGM HONIE (RNAV)–STAR

NORTHWEST

Traffic originating West and North of J43 to North of J14 file:

	BWG RMG–STAR
	or
	BWG ERLIN (RNAV)–STAR
	BNA RMG–STAR
	or
	BNA ERLIN (RNAV)–STAR
	MEM RMG–STAR
	or
	MEM ERLIN (RNAV–STAR)

SPECIAL HIGH ALTITUDE ARRIVAL ROUTES FOR ATLANTA TERMINAL AREA AIRPORTS (SATELLITE AIRPORTS ONLY JETS AND TURBOPROPS)

NORTHEAST

Traffic originating North and East of a line from ATL to VXV to North of a line from ATL to RDU file:

.....	J48 ODF AWSON–STAR
.....	J145 ODF AWSON–STAR
.....	VXV AWSON–STAR.....
.....	J186 ODF AWSON–STAR
.....	SPA ODF AWSON–STAR.....

SOUTHEAST

Traffic originating South of a line from ATL to RDU, to East of J89 file:

.....	IRQ TRBOW–STAR
.....	DBN TRBOW–STAR

SOUTHWEST

Traffic originating West of J89 to South and West of J14 file:

.....	MEI LGC MIKEE–STAR.....
.....	SZW LGC MIKEE–STAR.....
.....	MGM LGC MIKEE–STAR.....

NORTHWEST

Traffic originating West and North of a line from ATL to VXV to North of J14 file:

.....	GQO BUNNI–STAR
.....	RQZ BUNNI–STAR.....

SPECIAL HIGH ALTITUDE ARRIVAL ROUTES FOR CHARLOTTE TERMINAL AREA

NORTHEAST

Traffic originating North and East of J53 to North of a line from CLT to RDU file:

.....	LYH MAJIC–STAR.....
.....	RDU SUDSY (RNAV)–STAR
.....	ROA MAJIC–STAR

SOUTHEAST

Traffic originating South of a line from CLT to RDU to South and East of J51 file:

.....	FLO CTF–STAR
.....	FLO HUSTN (RNAV)–STAR.....

SOUTHWEST

Traffic originating West of J51 to South of J118 file:

.....	ATL ADENA (RNAV)–STAR
.....	ATL UNARM–STAR
.....	IRQ ADENA (RNAV)–STAR
.....	IRQ UNARM–STAR

NORTHWEST

Traffic originating West of J53 to North of J118 file:

.....	VXV SHINE–STAR
.....	HMV SHINE–STAR

SPECIAL HIGH ALTITUDE ARRIVAL ROUTES FOR MEMPHIS TERMINAL AREA

NORTHEAST

Traffic entering Memphis ARTCC north of J118:

.....	BNA WILDER–STAR	
.....	BWG WILDER–STAR	
.....	PXV WILDER–STAR	

NORTHWEST

Traffic entering Memphis ARTCC on or west of J35:

.....	FAM GQE–STAR	
.....	ARG GQE–STAR	
.....	SGF ARG GQE–STAR	
.....	RZC GQE–STAR	
.....	FSM GQE–STAR	1100–0200

SOUTHEAST

Traffic entering Memphis ARTCC south of J118:

.....	VUZ HLI–STAR (MONDAY–FRIDAY)	
.....	GQO HLI–STAR	1100–0200

SOUTHWEST

Traffic entering Memphis ARTCC on or south of J6:

.....	LIT MARVELL–STAR	
.....	TXK MARVELL–STAR	
.....	ELD MARVELL–STAR	
.....	SQS MARVELL–STAR	1100–0200

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

Terminals	Route	Effective Times (UTC)
Traffic entering Miami Center (ZMA) for northbound Caribbean flights originating from Santo Domingo UIR (MDCS) to:		
FLL	(Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)–STAR	
	or	
	JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL DEKAL–STAR	
	or	
	(Advanced RNAV equipped) RETAK A636 ZIN A315 HODGY ZQA 054V CAREY DEKAL WAVUN(RNAV)–STAR.....	
	or	
	RETAK A636 ZIN A315 HODGY ZQA 054V CAREY DEKAL DEKAL–STAR.....	
MIA	(Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA FLIPR (RNAV)–STAR	
	or	
	JUELE L463 BTLER A555 ZQA FOWEE –STAR	
	or	
	(Advanced RNAV equipped) RETAK A636 ZIN A315 HODGY FLIPR(RNAV)– STAR	
	or	
	RETAK A636 ZIN A315 HODGY FOWEE–STAR	
PBI	JUELE L463 BTLER A555 ZQA 054V PBI.....	
	or	
	RETAK A636 ZIN A315 HODGY ZQA 054V.....	

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Traffic overflying Atlanta Center originating north and east of a line from TYS to LAL (except DAY and CVG) for ZTL to MCO:		
.....	PSK CAE SAV OMN BITHO–STAR	1100–0400
	or	
.....	J83 SPA CAE SAV OMN BITHO–STAR.....	1100–0400
	or	
.....	(GPS or DME/DME–equipped) PSK CAE SAV OMN CWRLD (RNAV)–STAR	1100–0400
	or	
.....	(GPS or DME/DME–IRU equipped) J83 SPA CAE SAV OMN CWRLD (RNAV)–STAR	1100–0400
Traffic overflying Atlanta Center Eastbound originating South of a line from DFW to JFK:		
BDL.....	GRD J209 RDU J207 FKN J79 JFK DPK DPK–STAR.....	
BOS	(Turbojet only) GRD J209 RDU J207 FKN J79 JFK ORW–STAR	
	or	
	(Turboprop only) SIE J121 HTO V308 ORW V16 WOONS	
BWI	SPA J14 RIC OTT–STAR.....	
	or	
	(GPS or DME/DME.IRU equipped) SPA J14 RIC RAVNN (RNAV)–STAR	
DCA.....	SPA J14 RIC IRONS–STAR	
	or	
	(GPS or DME/DME–IRU equipped) SPA J14 RIC OJAAY (RNAV)–STAR	
EWR	SPA J14 J15 FAK DYLIN–STAR	
	or	
	(GPS or DME/DME.IRU equipped) SPA J14 J51 FAK PHLBO (RNAV)–STAR	
IAD.....	SPA J14 J51 FAK COATT–STARR.....	
JFK.....	GRD J209 ORF J121 SIE CAMRN–STAR.....	
LGA	AHN J208 HPW J191 PXT KORRY–STAR	
PHL	SPA J14 J51 FAK DPNT–STAR	
Northbound from over VXV with destination of CMH:		
.....	VXV J91 HNN BREMN–STAR.....	
Traffic overflying Atlanta Center Northbound from over SPA to CMH:		
.....	SPA J85 HVQ HNN BREMN–STAR	
Traffic overflying Atlanta Center Northbound from over PSK to CMH:		
.....	PSK HVQ HNN BREMN–STAR.....	
Traffic overflying Atlanta Center Southbound originating North and East of line from VXV to LAL (except DAY and CVG) with destinations of FLL, FMY, MCO, MIA, PBI, RSW, SRQ and TPA file:		
.....	PSK CAE.....	1100–0300
	or	
.....	J83 SPA J85 AMG.....	1100–0300
Traffic overflying Atlanta Center Southbound originating North and East of a line from VXV to LAL (with DAY and CVG) with destinations of FLL, FMY, MCO, MIA, PBI and RSW file:		
.....	VXV J91 ATL OTK.....	1100–0300
	or	
.....	BNA J73 SZW.....	1100–0300
	or	
.....	MGM J20 SZW	1100–0300
	or	
.....	BNA J73 SZW.....	1100–0300
	or	
.....	MGM J20 SZW	1100–0300

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Traffic originating South of Wilmington VORTAC (ILM):		
EWR	ILM J109 FAK DYLIN–STAR	1100–0300
	or	
	(GPS or DME/DME.IRU equipped) ILM J109 FAK PHLBO (RNAV)–STAR	1100–0300
FRG	(Water–Turbojets) WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	
JFK	(Water–Turbojets) WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	1100–0300
LGA	ILM TYI HPW J191 PXT KORRY–STAR	1100–0300
Traffic overflying Ormond Beach VORTAC (OMN) destined MIA:		
OMN	OMN J79 VRB HEATT–STAR	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to La Romana (MDLR) and Nagua (MDCY):		
ZMA	LETON L450 GTK ASIVO	
	or	
	LNHOM L452 GTK ASIVO	
	or	
	LAMER L464 CERDA L453 ASIVO	
	or	
	MLLER M594 CERDA L459 ASIVO	
	or	
	NUCAR L463 RNDLY ASIVO	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Puerto Plata (MDPP):		
ZMA	LETON L450 SEKAR A554 PTA	
	or	
	LNHOM L452 GTK A554 PTA	
	or	
	LAMER L453 MACKI B891 PTA	
	or	
	LUCTI L454 MNDEZ M594 CERDA L453 MACKI B891 PTA	
	or	
	MLLER M594 CERDA L453 MACKI B891 PTA	
	or	
	NUCAR L463 RNDLY SEKAR A554 PTA	
	or	
	WATRS M596 PTA	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Santo Domingo (MDSD):		
ZMA	LETON L450 SEKAR A554 CDO	
	or	
	LNHOM L452 GTK L450 SEKAR A554 CDO	
	or	
	LAMER L453 ASIVO CDO	
	or	
	LUCTI L454 MNDEZ M594 CERDA L453 ASIVO CDO	
	or	
	MLLER M594 CERDA L453 ASIVO CDO	
	or	
	NUCAR L463 RNDLY SEKAR A554 CDO	

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Port au Prince (MTPP):		
ZMA	LETON L450 GTK G444 OBN or LNHOM L452 GTK G444 OBN or LAMER L464 CERDA M594 GTK G444 OBN	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Saint Johns Island (TAPA):		
ZMA	LETON L451 ELMUC L451 ANU or LNHOM L452 JORGG L451 ELMUC L451 ANU or LAMER L453 CERDA L451 ELMUC L451 ANU or LUCTI L454 ELMUC L451 ANU	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Bridgetown (TBPB):		
ZMA	LETON L451 ELMUC L454 ILURI A555 BGI or LNHOM L452 JORGG L451 ELMUC L454 ILURI A555 BGI or LAMER L453 CERDA L451 ELMUC L454 ILURI A555 BGI or LUCTI L454 ELMUC L454 ILURI A555 BGI	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Fort de France (TFFF):		
ZMA	LETON L451 ELMUC L454 ILURI A555 FOF or LNHOM L452 JORGG L451 ELMUC L454 ILURI A555 FOF or LAMER L453 CERDA L451 ELMUC L454 ILURI A555 FOF or LUCTI L454 ELMUC L454 ILURI A555 FOF	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Grand Case (TFFG) and Saint Barthelemy (TFFJ) and Oranjestad–Roosevelt (TNCE) and Sanit Maarten (TNCM) and The Valley (TQPF):		
ZMA	LETON L451 ELMUC L451 PJM or LNHOM L452 JORGG L451 ELMUC L451 PJM or LAMER L453 CERDA L451 ELMUC L451 PJM or LUCTI L454 ELMUC L451 PJM	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Point a Pitre (TFFR):		
ZMA	LETON L451 ELMUC L454 LEEOO MODUX R888 PPR or LNHOM L452 JORGG L451 ELMUC L454 LEEOO MODUX R888 PPR or LAMER L453 CERDA L451 ELMUC L454 LEEOO MODUX R888 PPR or LUCTI L454 ELMUC L454 LEEOO MODUX R888 PPR	

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Saint Thomas Virgin Islands (TIST):		
ZMA	LETON L451 ELMUC L454 PANMO JETSS or LNHOM L452 JORGG L451 ELMUC L454 PANMO JETSS or LAMER L453 CERDA L451 ELMUC L454 PANMO JETSS or LUCTI L454 ELMUC L454 PANMO JETSS	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Saint Croix Virgin Islands (TISX):		
ZMA	LETON L451 ELMUC L454 PANMO COY or LNHOM L452 JORGG L451 ELMUC L454 PANMO COY or LAMER L453 CERDA L451 ELMUC L454 PANMO COY or LUCTI L454 ELMUC L454 PANMO COY	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Aguadilla (TJBQ):		
ZMA	LETON L451 ELMUC BQN or LNHOM L452 JORGG L451 ELMUC BQN or LAMER L453 CERDA L451 ELMUC BQN or LUCTI L454 ELMUC BQN	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to San Juan (TJIG):		
ZMA	LETON L451 ELMUC IDAHO BEANO or LNHOM L452 JORGG L451 ELMUC IDAHO BEANO or LAMER L453 CERDA L451 ELMUC IDAHO BEANO or LUCTI L454 ELMUC IDAHO BEANO	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Mayaguez (TJMZ):		
ZMA	LETON L451 ELMUC MAZ or LNHOM L452 JORGG L451 ELMUC MAZ or LAMER L453 CERDA L451 ELMUC MAZ or LUCTI L454 ELMUC MAZ	

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Ponce (TJPS):		
ZMA	LETON L451 ELMUC PSE or LNHOM L452 JORGG L451 ELMUC PSE or LAMER L453 CERDA L451 ELMUC PSE or LUCTI L454 ELMUC PSE	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to San Juan (TJSJ):		
ZMA	LETON L451 ELMUC IDAHO R006 or LNHOM L452 JORGG L451 ELMUC IDAHO R006 or LAMER L453 CERDA L451 ELMUC IDAHO R006 or LUCTI L454 ELMUC IDAHO R006	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Golden Rock (TKPK) and Charlestown (TKPN):		
ZMA	LETON L451 ELMUC L454 LEEOO DANDE G633 SKB or LNHOM L452 JORGG L451 ELMUC L454 LEEOO DANDE G633 SKB or LAMER L453 CERDA L451 ELMUC L454 LEEOO DANDE G633 SKB or LUCTI L454 ELMUC L454 LEEOO DANDE G633 SKB	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Crown Point (TTCP) and Port of Spain (TTPP):		
ZMA	LETON L451 ELMUC G431 DDP G449 POS or LNHOM L452 JORGG L451 ELMUC G431 DDP G449 POS or LAMER L453 CERDA L451 ELMUC G431 DDP G449 POS or LUCTI L454 ELMUC G431 DDP G449 POS or GTK L452 ANADA G449 POS	

HIGH ALTITUDE—SINGLE DIRECTION ROUTES

Airway	Segment Fixes	Direction Effective	Effective Times (UTC)
J14	Greensboro, NC to Richmond, VA	Northeast	1100–0300
J37	Coyle, NJ to Spartanburg, SC	Southwest	1100–0300
J40	Wilmington, NC to Richmond, VA	North	1100–0300
J48	Pottstown, PA to Foothills, GA	Southwest	1100–0300
J51	Columbia, SC to Yardley, NJ	Northeast	1100–0300
J52	Columbia, SC to Richmond, VA	Northeast	1100–0300
J55	Florence, SC to HUBBS Int., VA	Northeast	1100–0300
J75	Modena, PA to Greensboro, NC	Southwest	1100–0300
J89	Atlanta, GA to HITTR Int, FL	South	1100–0300
J91	Cross City, FL to Atlanta, GA	North	1100–0300
J109	Wilmington, NC to Buffalo, NY	North	1100–0300
J165	Charleston, SC to Richmond, VA	North	1100–0300
J191	Wilmington, NC to Robbinsville, NJ	North	1100–0300
J193	HUBBS Int., VA to Wilmington, NC	South	1100–0300
J207	Florence, SC to Franklin, VA	Northeast	1100–0300
J208	Athens, GA to Hopewell, VA	Northeast	1100–0300
J209	Greenwood, SC to Norfolk, VA	Northeast	1100–0300

GULF OF MEXICO "Q ROUTES"

These area navigation routes extend more than 12 miles off shore in airspace controlled by the Federal Aviation Administration (FAA). Additional regulatory information for these routes can be found in the Notices to Airmen Publication, Part 3, International Notices to Airmen.

These routes have a Minimum Obstruction Clearance Altitude (MOCA) of 1500 feet (MSL). The Minimum Enroute Altitude (MEA) for these routes is 6000 feet (MSL).

Q100

LEV VORTAC	
REDFN	N28°52.98'/W088°42.11'
ROZZI	N28°18.87'/W086°42.31'
REMIS	N27°53.04'/W085°15.47'
SRQ VORTAC	

Q102

LEZ VORTAC	
BLVNS	N28°22.94'/W088°02.05'
BUNNZ	N28°00.58'/W086°45.76'
BACCA	N27°35.51'/W085°20.66'
CIGAR	N27°29.61'/W084°46.99'
BAGGS	N27°08.06'/W082°50.45'
CYY VORTAC	

Q105

HRV VORTAC	
FATSO	N29°41.40'/W089°47.08'
REDFN	N28°52.98'/W088°42.11'
BLVNS	N28°22.94'/W088°02.05'

Q–ROUTES REGULATORY

Q1, Q3, Q5, Q7, Q9 and Q11 are preferred single direction (Southbound) Q routes; flight planning Northbound not authorized.

Q routes are RNAV routes that require the use of GNSS or DME/DME/IRU RNAV, unless otherwise indicated. Please note that this section does not apply to Q routes in the Gulf of Mexico. Gulf of Mexico Q routes are explained in the Southeast and South Central A/FD volumes. Q routes listed in this AF/D volume have at least part of one of their leg segments within this volume's area of coverage.

GNSS and DME/DME/IRU RNAV operations are authorized along Q routes at FL 180 and above. GNSS and DME/DME/IRU RNAV MEAs will only be published if above FL 180.

DME facilities that have been assessed for RNAV operations are listed below. Q routes with no DME facilities listed are limited to GNSS RNAV operations only. Those routes will have an enroute chart note ''GNSS REQUIRED''.

Route	Segment	DME
Q1	ELMAA–ERAVE	BTG, OLM, HQM, HUH, UBG
	ERAVE–EASON	BTG, OLM, HQM, HUH, LTJ, CVO, DSD, OED, UBG, ONP, EUG
	EASON–EBINY	CVO, DSD, OED, BTG, UBG, ONP, EUG, LMT
	EBINY–ENVIE	CVO, OED, EUG, LMT, RBL, ENI, ONP, FJS
	ENVIE–ETCHY	OED, PYE, OAK, LIN, ECA, LMT, RBL, ENI, SAC, FJS
	ETCHY–POINT REYES	LIN, ECA, RBL, ENI, SAC, OAK
Q2	BOILE–HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI–HOBOL	BZA, GBN, BLH, EED, PXR, IPL, TFD, DRK, TUS
	HOBOL–ITUCO	TFD, GBN, BLH, PXR, TUS, CIE, SSO
	ITUCO–NEWMAN	EWM, TFD, PXR, CIE, SSO, TUS, TCS
Q3	FEPOT–FAMUK	OLM, TOU, HQM, CVO, BTG, DSD, LTJ, UBG, ONP, EUG
	FAMUK–FRFLY	BTG, DSD, OED, CVO, EUG, ONP, UBG, RBL, LMT
	FRFLY–FINER	OED, EUG, RBL, LMT, ENI, CVO, FJS
	FINER–FOWND	OED, PYE, ECA, LIN, OAK, ENI, RBL, LMT, SAC, FJS
	FOWND–POINT REYES	LIN, ECA, PYE, RBL, SAC, ENI
Q4	BOILE–HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI–SCOLE	EED, BLH, BZA, GBN, TRM, IPL, TFD
	SCOLE–SPTFR	EED, BLH, BZA, GBN, TRM, IPL, TFD
	SPTFR–ZEBOL	EED, IPL, BZA, GBN, TFD, PXR, BLH
	ZEBOL–SKTTR	PXR, BLH, BZA, GBN, TFD, TUS, SSO, CIE, SVC, TCS
	SKTTR–EL PASO	EWM, CUS, SVC, TCS, SSO, CIE, ELP, DMN, CME

Route	Segment	DME
Q5	HAROB–HISKU	OLM, ONP, CVO, EUG, HQM, UBG, BTG, LTJ, DSD, HUH
	HISKU–HARPR	ONP, CVO, EUG, LTJ, DSD, UBG, BTG, RBL, OED, LMT, FJS, LKV
	HARPR–HOMEG	CVO, EUG, OED, RBL, LMT, ENI, FJS, LKV
	HOMEG–HUPTU	SAC, PYE, LIN, OAK, ECA, LMT, RBL, ENI, OED, FJS
	HUPTU–STIKM	OAK, ECA, PYE, LIN, SAC, ENI, RBL
Q7	JINMO–JOGEN	CVO, HQM, LTJ, UBG, BTG, ONP, IMB, EUG, OLM, DSD, YKM, PDT, SEA
	JOGEN–JUNEJ	LTJ, IMB, UBG, EUG, CVO, RBL, LMT, FMG, DSD, LKV, OED, BTG
	JUNEJ–JAGWA	RBL, LMT, FMG, LIN, SAC, ECA, ENI, MOD, SWR, OAK, LKV, CZQ, AVE, SNS
	JAGWA–AVENAL	OAK, MOD, ECA, EHF, PRB, AVE, SNS, CZQ
Q9	SUMMA–SMIGE	OLM, UBG, SEA, YKM, BTG, ONP, IMB, HQM, PDT, EUG, LTJ, CVO, DSD, OED, EPH, MWH
	SMIGE–SUNBE	IMB, UBG, EUG, IMB, RBL, LMT, FMG, SAC, OED, CVO, LKV, DSD, BTG
	SUNBE–REBRG	RBL, LMT, FMG, SAC, ECA, MVA, CZQ, OAK, EHF, PMD, LKV, LIN, MOD, AVE, OED, SWR
	REBRG–DERBB	CZQ, PMD, EHF, LAX, RZS, AVE, MOD, ECA
Q11	PAAGE–PAWLI	EPH, UBG, CVO, EUG, HQM, YKM, OLM, PDT, BTG, ONP, IMB, LTJ, DSD, LKV, OED, SEA
	PAWLI–PITVE	EUG, FMG, SAC, IMB, LKV, OED, DSD, RBL, LMT, CVO, REO
	PITVE–PUSHH	FMG, SAC, LIN, SWR, MOD, OAL, RBL, LKV, LMT, MVA, CZQ
	PUSHH–LOS ANGELES	SAC, ECA, FMG, LIN, OAL, MOD, EHF, LAX, PMD, PDZ, HEC, OCN, CZQ, AVE, RZS
Q13	All segments	None; GNSS required
Q15	All segments	None; GNSS required
Q19	PLESS–NASHVILLE	ENL, GQO, PXV, BNA, IIU, FAM, BWG, CSX
Q20	CORONA–HONDS	CNX, ABQ, ACH, ONM, TXO, LVS, TCC, CME
	HONDS–UNNOS	CNX, INK, CME, TXO, TCC
	UNNOS–FUSCO	FST, ACH, INK, CME, SJT, TXO, TCC
	FUSCO–JUNCTION	ABI, CWK, CSI, INK, LZZ, JCT, SJT, STV, FST
Q21	JONEZ–RAZORBACK	BYP, EOS, TUL, TXK, ADM, RZC, OKM
Q22	GUSTI–OYSTY	AEX, DAS, MCB, LLA, BTR, LCH, HRV, LFT, LEV
	OYSTY–ACMES	RQR, GCV, MCB, BTR, PCU, GPT, HRV, LEV, SJI
	ACMES–CATLN	SJI, MGM, MCB, BFM, GPT, GCV, HRV, CEW, MVC, PCU, MEI
Q23	FORT SMITH–RAZORBACK	OKM, RZC, EOS, TUL
Q24	LAKE CHARLES–BATON ROUGE	AEX, DAS, LCH, MCB, LFT, BTR
	BATON ROUGE–IRUBE	AEX, LEV, MCB, LCH, RQR, HRV, BTR, GCV, MCB, PCU, SJI, LBY
	IRUBE–PAYTN	GCV, MCB, JYU, PCU, MEI, HRV, CEW, SJI
Q25	MEEOW–WALNUT RIDGE	ELD, MEM, LIT, FAM, RZC
	WALNUT RIDGE–WLSUN	MEM, STL, BWG, PXV, ENL, FAM, ARG, BNA, CSX, TTH
	WLSUN–POCKET CITY	BWG, PXV, ENL, BNA, TTH
Q26	WALNUT RIDGE–DEVAC	LIT, JKS,GQO, MEM, BNA, FAM, ARG, DYR, VUZ, RMG
Q27	FORT SMITH–ZALDA	OKM, SGF, RZC, EOS, TUL
Q28	GRAZN–PYRMD	EIC, LIT, ELD, OKM, TXK
	PYRMD–HAKAT	ARG, LIT, FAM, ELD, SGF, RZC, MEM, TXK
	HAKAT–ESTEE	ARG, LIT, FAM, SGF, MEM
	ESTEE–POCKET CITY	ARG, CSX, FAM, PXV, ENL, MEM, STL, BWG, TTH, BNA
Q29	HARES–MEMPHIS	MEM, ARG, LIT, JAN, ELD, SQS
	MEMPHIS–SIDAE	MEM, PXV, BNA, BWG, ARG, ENL
	SIDAE–POCKET CITY	PXV, TTH, BWG, ENL
Q30	SIDON–VULCAN	GLH, MEM, VUZ, JAN, JYU, MEI, MGM, SQS, RMG
Q31	DHART–JODOX	SQS, LIT, TXK
	JODOX–MARVELL	SQS, LIT, ELD, MEM, ARG
	MARVELL–TIIDE	ARG, BWG, PXV, FAM, LIT, MEM, ENL, TTH
	TIIDE–POCKET CITY	BWG, PXV, ENL, TTH
Q32	EL DORADO–GAGLE	AEX, JAN, MEM, SQS, SWB, ELD, LIT, TXK
	GAGLE–CRAMM	JAN, SQS, MEM, ARG, VUZ, BNA, LIT
	CRAMM–NASHVILLE	BWG, MEM, VUZ, BNA, GQO
	NASHVILLE–SWAPP	BWG, IIU, PXV, VXV, BNA, GQO
Q33	DHART-LITTLE ROCK	AEX, ELD, LIT, TXK, SWB, ARG, MEM, SQS
	LITTLE ROCK–PROWL	ELD, SGF, FAM, LIT, ARG, MEM, RZC, CSX, STL
Q34	TEXARKANA–MATIE	LIT, SWB, TXK, BYP, EIC, ELD, SQS
	MATIE–MEMPHIS	LIT, ARG, MEM, ELD, SQS
	MEMPHIS–SWAPP	BWG, ARG, MEM, MKL, SQS,PXV, BNA, GQO, IIU, VXV
Q35	KIMBERLY–NEERO	LTJ, PDT, DSD, IMB, LKV, BOI, REO, BAM, SDO
	NEERO–WINEN	BQU, SDO, BAM, REO, BVL, ILC, DTA, ELY, CDC, MLF, BCE
	WINEN–CORKR	CDC, BCE, BLD, ILC, MLF, TBC, PGS, INW, DRK
	CORKR–DRAKE	TBC, BCE, BLD, DRK, PGS, FLG, GCN, INW, TFD

Route	Segment	DME
Q36	RAZORBACK–TWITS	RZC, MEM, SGF, BUM, TUL, EOS, FAM, ARG, LIT
	TWITS–DEPEC	MEM, GQO, BNA, BWG, FAM, ARG, PXV, IIU
	DEPEC–NASHVILLE	GQO, BWG, BNA, PXV, IIU
	NASHVILLE–SWAPP	VXV, BWG, BNA, GQO, PXV, IIU
Q38	ROKIT–INCIN	DAS, LCH, SWB, IAH, LFK, HUB, AEX
	INCIN–LAREY	JAN, MCB, SWB, AEX
	LAREY–BESOM	JAN, JYU, MEI, SQS, VUZ
Q40	ALEXANDRIA–DOOMS	AEX, SWB, LCH, JAN, HEZ, MCB
	DOOMS–WINAP	JAN, SQS, MEI, MCB
	WINAP–MISLE	MEI, VUZ, JYU
Q42	KIRKSVILLE–STRUK	CID, IOW, UIN, LMN, IRK, BDF, STL, DEC, ENL, CSX
	STRUK–DANVILLE	ENL, IOW, UIN, BDF, DEC, STL, CSX, SPI, TTH, BVT, JOT, VHP, OXI, ENL, OKK, OBK, GIJ, FWA, GSH, IRK
	DANVILLE–MUNCIE	GIJ, SPI, BDF, OBK, OKK, VHP, BVT, DEC, GSH, FWA, JOT, TTH, OXI, ROD, FLM
	MUNCIE–HIDON	FLM, VHP, GSH, TTH, GIJ, OKK, FWA, ROD, OXI, CRL, GSH, APE, DJB, DXO, HNN, AIR, HVQ, CXR, EWC
	HIDON–BUBAA	AIR, APE, HNN, CXR, HVQ, EWC, DJB
	BUBAA–PSYKO	AIR, APE, DJB, CXR, HNN, EWC, SLT, CSN, JHW, ETG, PSB
	PSYKO–BRNAN	PSB, JHW, EWC, AIR, ETG, CSN, EMI, SLT
	BRNAN–MAALS	EMI, SLT, CSN, EWC, PSB, ETG, SAX, RBV, HNK, HUO, SIE
	MAALS–SUZIE	ETG, EMI, CSN, HUO, SIE, JFK, PSB, SLT, HNK
	SUZIE–EAST TEXAS	JFK, EMI, PSB, SLT, HNK, SIE, RBV, SAX, HUO, CYN
	EAST TEXAS–ELIOT	HUO, RBV, EMI, CYN, SAX, JFK, PSB, HNK
Q104	DEFUN–HEVVN	PIE, PZD, CRG, SZW, TAY, JYU, CEW, MGM, OTK, CRG
	HEVVN–PLYER	PIE, ORL, OMN, SRQ, TAY, LAL, CRG, SZW, PZD
	PLYER–SWABE	PIE, ORL, OMN, SRQ, TAY
	SWABE–ST PETERSBURG	LAL, ORL, OMN, SRQ, PHK, PIE
	ST PETERSBURG–CYPRESS	PHK, PBI, SRQ, PIE, VRB, ORL, FLL, LAL, OMN
Q106	SMELZ–BULZI	LAL, ORL, OMN, PHK, PIE, CRG, VRB, TAY, OTK, PZD, AMG, SZW
	BULZI–DRABK	AMG, PZD, TAY, CRG, SZW, MGM, OTK, JYU, CEW, SJI
	DRABK–GADAY	MGM, PZD, OTK, JYU, SZW, CEW, SJI
Q108	GADAY–HKUNA	CEW, JYU, MGM, SZW, RRS, PZD, MAI, OTK, GEF, MGR, TAY, AMG, CRG
Q110	THNOR–JAYMC	SRQ, VRB, PHK, PIE, LAL, VKZ, ORL, PBI
	JAYMC–RVERO	VKZ, VRB, PHK, PIE, LAL, SRQ, ORL, OMN, PBI, DHP
	RVERO–KPASA	OMN, PIE, PBI, SRQ, ORL, LAL
	KPASA–BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS–GULFR	OMN, AMG, CRG, SZW, PIE, TAY, PZD, OTK
	GULFR–FEONA	TAY, MCN, PZD, CRG, OTK, SZW, AMG, MCN, ATL, MGM
Q112	DEFUN–HEVVN	PIE, OTK, CRG, OMN, LAL, SZW, SRQ, ORL, VRB
	HEVVN–INPIN	JYU, PZD, CEW, SZW, MGM, OTK, TAY, AMG, PIE, CRG
Q116	KPASA–BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS–GULFR	OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK
	GULFR–CEEYA	MCN, AMG, PZD, OTK, SZW, TAY
Q118	KPASA–BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS–LENIE	OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK, MCN
Q501	VIXIS–GOPHER	ECK, FNT, APN, SSM, GRR, MBL, SAW, BAE, MNM, DLL, AUW, ODI, STE, FGT,EAU, DLH, GEP, BRD, MCW, MSP, ASP, TVC, GRB, RWF
	GOPHER–SOBME	FGT, BRD, MCW, GEP, ABR, FAR, DLH, ODI, RWF, FSD
Q502	KENPA–GOPHER	SSM, FNT, ECK, APN, SAW, GRB, BAE, DLL, AUW, ODI, FGT, DLH, EAU, MCW, MSP, MNM, ASP, TVC, GEP, RWF, BRD
	GOPHER–SOBME	FGT, DLH, ODI, MCW, ABR, FAR, MSP, GEP, RWF, FSD, BRD
Q504	NOTAP–CESNA	SSM, ECK, APN, GLR, PLN, ISQ, MNM, DLL, RHI, DLH, GEP, FGT, ODI, ASP, TVC, SAW, GRB, BRD
	CESNA–HEMDI	ODI, GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, DLL, BRD
Q505	OMAGA–RIMBE	SSM, TVC, ASP, SAW, GRB
	RIMBE–CESNA	SSM, RHI, DLL, DLH, GEP, FGT, TVC, SAW, GRB, BRD, ODI
	CESNA–HEMDI	GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, BRD, ODI, GRB

RNAV Routing Pitch and Catch Points

The purpose of this section of the Special High Altitude Routes is to present user routing options for flight within the initial HAR Phase I expansion airspace. Users are able to fly user-preferred routes, referred to as non-restrictive routing (NRR), between specific fixes described by **pitch** (entry into) and **catch** (exit out of) fixes in the HAR airspace. Pitch points indicate an end of departure procedures, preferred IFR routings, or other established routing programs where a flight can begin a segment of NRR. The catch point indicates where a flight ends a segment of NRR and joins published arrival procedures, preferred IFR routing, or other established routing programs.

The HAR Phase I expansion airspace is defined as that airspace at and above FL 350 in fourteen of the western and southern Air Route Traffic Control Centers (ARTCCs). The airspace includes Minneapolis (ZMP), Chicago (ZAU), Kansas City (ZKC), Denver (ZDV), Salt Lake City (ZLC), Oakland (ZOA), Seattle Centers (ZSE), Los Angeles (ZLA), Albuquerque (ZAB), Fort Worth (ZFW), Memphis (ZME), and Houston (ZHU). Jacksonville (ZJX) and Miami (ZMA) are included for east-west routes only.

To develop a flight plan, select pitch and catch points based upon your desired route across the Phase I airspace. Filing requirements to pitch points, and from catch points, remain unchanged from current procedures. For the portion of the route between the pitch and catch points, non-restrictive routing is permitted.

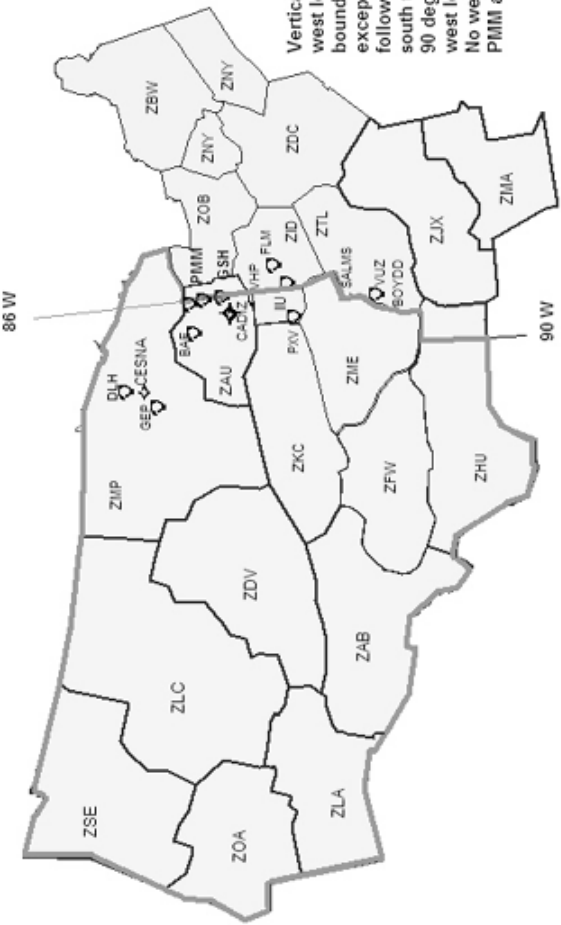
Where pitch points for a specific airport are not identified, aircraft should file an appropriate departure procedure (DP), or any other user preferred routing prior to the NRR portion of their routing. Where catch points for a specific airport are not identified aircraft should file, after the NRR portion of their routing, an appropriate arrival procedure or other user preferred routing to their destination.

Additionally, information concerning the location and schedule of Special Use Airspace (SUA) and Air Traffic Control Assigned Airspace (ATCAA) can be found on the Web Site: http://sua.faa.gov/sua/Welcome.do. ATCAA refers to airspace in the high altitude structure supporting military and other special operations. Users are encouraged to file around these areas when they are scheduled to be active, thereby avoiding unplanned reroutes around them.

In conjunction with the HAR program RNAV routes have been established to provide for a systematic flow of air traffic in specific portions of the enroute flight environment. The designator for these RNAV routes begin with the letter Q, for example, Q-501. Where those routes aid in the efficient orderly management of air traffic they will be published as preferred IFR routes.

High Altitude Redesign (HAR) Phase One Expansion Airspace

Except as noted, flights entering HAR expansion airspace may pitch at the airspace boundary, at the vertical pitch line, or at the fixes listed on the following page.



Vertical Pitch Line: 86 degrees west longitude from the ZMP/ZAU boundary to the ZME/ZID boundary, except between PMM and GSH, then following the ZME east boundary south to the ZHU boundary. Then west to 90 degrees west longitude, the 90 degrees west longitude to the ZHU southern boundary. No westbound traffic between PMM and GSH.

HAR Special High Altitude Pitch (entry) Points for Nonrestrictive Routing for Airports Located Outside HAR Phase I Expansion Airspace

Westbound traffic originating outside of HAR airspace entering ZMP, ZAU, ZKC and ZME can begin non–restrictive routing over any of the following pitch points (listed from north to south):

DLH, CESNA, GEP, BAE, MKG, GRR, PMM, GSH, CADIZ, FWA, VHP, FLM, IIU, PXV, SGF, RZC, BNA, SALMS, VUZ, BOYDD, MIE.

Traffic originating outside of HAR airspace may also begin Nonrestrictive Routing upon crossing the pitch line depicted on the associated graphic.

HAR Special High Altitude Pitch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists pitch points for airports within the HAR Phase I expansion airspace.

Albuquerque	ABQ, GUP, HANOS or ZUN
Austin	ABI, FUZ, JCT, MQP, NAVYS, SJT or TNV
Boca Raton, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Burbank includes Santa Monica and Van Nuys	GMN, MARKS or DAG LAS or HEC EED or PMD BLH
Chicago Terminal Area	IOW, PLL275065, MZV or BAE
Dallas/Fort Worth Terminal Area	ABI, LBB, GTH, CDS, MRMAC, IRW, TUL, MLC, TXK ELD, SWB or Aircraft destined the Chicago terminal area Except MDW EAKER MIDEE BDF BRADFORD–STAR Or MLC J105 SGF BDF BRADFORD–STAR
Denver Terminal Area	PUB, DVC, DBL, RLG, EKR, LAR, MBW, CYS, BFF, HANKI, NATTI, ASHBY, BELKE, CABET, WEEDS, OR BINKE
Fort Lauderdale (or) Fort Lauderdale Executive	THNDR KPASA Q118 LENIE or THNDR KPASA Q116 CEEYA or THNDR KPASA Q110 FEONA or THNDR SMELZ Q106 GADAY or THNDR SMELZ Q106 BULZI
Houston Bush	LIT, ELD, MLC, JCT or Aircraft destined Atlanta Terminal Area LCH Q24 PAYTN HONIE–RNAV STAR or Aircraft joining J37 to the northeast, GUSTI SID GUSTI Q22 CATLN or Aircraft joining J42 to the northeast, EL DORADO SID ELD Q32 J42

Houston Hobby	LIT, ELD, MLC, JCT, or Aircraft joining J42 to the northeast, EL DORADO SID ELD Q32 J42
Jacksonville, FL	TAY
Kansas City Terminal Area	TIFTO, CATTS or KENTN
Los Angeles, includes Ontario	GMN, RZS or DAG LAS or TRM EED or TRM PKE
Las Vegas	DOBNE, MOSBI, NICLE, TRALR or ZELOT
Long Beach includes Orange County	GMN SNS, EHF, LANDO or TRM PKE or TRM EED
Memphis	BNA, HAAWK, SALMS or SQS
Miami Terminal Area	WINCO KPASA Q118 LENIE or WINCO KPASA Q116 CEEYA or WINCO KPASA Q110 FEONA or WINCO SMELZ Q106 GADAY or WINCO SMELZ Q106 BULZI
Milwaukee	GREAS
Minneapolis Terminal Area*	ONL, ABR, FAR, OBH, OVR, FOD
New Orleans Terminal Area	AEX, MEI, SQS, KAPLN
Orlando Terminal Area	WEBBS BRUTS Q118 LENIE or WEBBS GULFR Q116 CEEYA or WEBBS BULZI Q106 GADAY or WEBBS FEONA or WEBBS BULZI
Palm Beach, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Palm Springs	TRM JOTNU BLD or TRM EED or TRM PKE
Phoenix	CHILY, CIE, CULTS, RSK, DOVEE, GCN, MESSI, SJN, DRYHT or MOHAK
Portland, OR	PDT, TIMEE

Salt Lake City	HVE, DTA, MLF, BCE, OAL, MTU, BVL, OCS, TWF, DBS, BPI or TCH J56 CHE or TCH J173 EKR
Saint Louis	VIH, MAP, MYERZ, MCM or HLV MCI
San Antonio Terminal Area	FUZ, SJT, MQP, ABI or Aircraft North of LFK, LFK or Aircraft South of HUB, ELA or Aircraft South of LFK and North of HUB LCH
San Diego	TRM EED or TRM PKE or TRM JOTNU BLD
San Francisco Bay Area Oakland San Jose	GALLI, INSLO, HAROL JSICA GALLI, INSLO, HAROL JSICA GALLI or INSLO
Seattle	BLUIT
Southwest Florida Airports (RSW/FMY)	JOCKS KPASA Q118 LENIE or JOCKS KPASA Q116 CEEYA or JOCKS KPASA Q110 FEONA or JOCKS SMELZ Q106 GADAY or JOCKS SMELZ Q106 BULZI
Tampa Terminal Area	FEONA, BULZI or BRUTS Q118 LENIE or GULFR Q116 CEEYA or BULZI Q106 GADAY

*MSP area departures with destinations east of 93 degrees west longitude via preferred IFR routing.

Catch Points for Airports Located Outside HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to specific destinations which are outside the HAR Phase I airspace.

Atlanta Terminal Area	Aircraft through ZME airspace from ZKC airspace east of FAM, Pless Q19 BNA or Aircraft through ZME airspace from ZKC airspace west of FAM, ARG Q26 DEVAC or MEM or Aircraft through ZME airspace from ZID airspace west of a line from VHP to BWG, BNA or Aircraft through ZME airspace from ZID airspace east of a line from VHP to BWG, BWG or Aircraft through ZME airspace from ZFW airspace, MEM or MEI HONIE (RNAV)–STAR or PATYN HONIE (RNAV)–STAR

Baltimore–Washington*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA or VUZ
Boston*	GEP, CRL, ECK, IIU, BNA or VUZ
Buffalo*	GEP, CRL
Hartford Bradley*	GEP, CRL
Canton–Akron*	GIJ, VHP, GEP
Charlotte	BNA, VUZ
Cincinnati Terminal Area	BNA, PXV or Aircraft north of SLC, JOT or Aircraft over or south of SLC, ENL or SLC or SFO departures, ENL, JOT
Cleveland Terminal Area*	OBK
Detroit Terminal Area	BAE MKG POLAR–STAR or VHP FWA MIZAR–STAR
Detroit Young	VHP FWA or LAN SPRTN–STAR
Indianapolis Terminal Area	BIB, SPI, JOT
Louisville	ENL, MEM
Newark*	GEP, VHP, FLM, IIU, BNA, VUZ or IOW GIJ J554 CRL J584 SLT FQM
New York Kennedy*	GEP, VHP, FLM, IIU, BNA, VUZ or DBQ J94 PMM J70 LVZ LENDY–STAR
New York LaGuardia*	GIJ, GEP, VHP, BAE, FLM, IIU, BNA, VUZ
Philadelphia Terminal Area*	GIJ, GEP, VHP, BAE, WHETT, BNA, VUZ
Pittsburgh Terminal Area*	VHP, GIJ, BAE, GEP
Pontiac	LFD, LAN, VHP, FWA, GEP
Providence	JHW, HEMDI, CESNA, GEP, GRB, TVC, ASP, VHP, IIU, BNA, VUZ
Raleigh–Durham	FLM, IIU, BNA, VUZ
Toronto Terminal Area	ECK, SVM, SSM, GEP
Teterboro*	GEP, VHP, CRL, BNA, VUZ
Washington Dulles/National*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA, VUZ
White Plains*	GEP, VHP, CRL, FLM, IIU, BNA, VUZ
Willow Run*	LAN, LFD, VHP, FWA, GEP

*Eastbound aircraft over flying ZMP center airspace entering Toronto center airspace, file direct SSM or via J63, J522, Q505, Q504, Q502, Q501
or
Entering ZAU or ZOB airspace from north of DPR J16 MCW, GEP
or
Entering ZAU or ZOB airspace from or south of DPR J16 MCW, CRL.

Catch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to airports which are below HAR Phase I airspace.

Albuquerque Terminal Area	CURLY CURLY–STAR or ESPAN FRIHO–STAR or LAVAN LAVAN–STAR or FTI FRIHO–STAR or MIERA MIERA–STAR
Austin Terminal Area	Aircraft west of a north–south line at LFK, BLEWE or Aircraft east of a north–south line at LFK,IDU or LLO
Boca Raton, FL	CEW DEFUN Q112 INPIN SHDAY (RNAV)–STAR Aircraft through ZHU remain south of ZME and ZTL airspace or DEFUN Q112 INPIN SHDAY (RNAV)–STAR Aircraft through ZHU remain south of ZME and ZTL airspace or SZW INPIN SHDAY (RNAV)–STAR
Chicago Midway	CVA MOTIF–STAR or PIA MOTIF–STAR or DBQ CVA MOTIF–STAR or LMN MOTIF–STAR
Chicago O'Hare Terminal Area	GEP DLL MSN JVL JANESVILLE–STAR or TVC PULLMAN–STAR or FOD DBQ JVL JANESVILLE–STAR or MCW JANESVILLE–STAR or GCK IRK BRADFORD–STAR
Dallas/Fort Worth Terminal Area	IRW, LOSZY, FSM, LIT, SQS, MLU, AEX, JUMBO, TQA, TURKI, HEATR Aircraft through ZME airspace from north and west of PXV, RZC, Q23 FSM or Aircraft through ZME airspace from east of PXV, PXV Q25 MEEOW or Aircraft through ZME airspace from J6 down to, but not including J52, LIT, SQS or Aircraft through ZME airspace from J52 and south of J52, SQS

Denver Terminal Area	OATHE DANDD–STAR or HGO QUAIL–STAR or LOPEC–STAR or ALS LARKS–STAR or HBU POWDR–STAR or EKR TOMSN–STAR or CHE TOMSN–STAR or BFF LANDR–STAR or LBF SAYGE–STAR or HCT SAYGE–STAR or RSK LARKS–STAR or LAA QUAIL–STAR or GCK J154 RYLIE DANDD–STAR or OCS J154 ALPOE RAMMS–STAR or YANKI J114 SNY LANDR–STAR or Aircraft filed BIL or east, MBW RAMMS–STAR
Ft Lauderdale or Ft Lauderdale Executive	CEW DEFUN Q104 PIE SWAGS (RNAV)–STAR Aircraft through ZHU airspace remain south ZME and ZTL airspace or SZW HEVVN Q104 PIE SWAGS (RNAV)–STAR
Houston Bush	CRP, CVE, LLO, LUKIY, SAT or Aircraft south and east of LLA, JEPEG or MISLE Q40 AEX or Aircraft north and east of SJI, SJI or Aircraft east of PXV, PXV Q31 DHART SWB or Aircraft north and west of PXV, PROWL Q33 DHART SWB
Houston Hobby	CRP, ELLVR, SAT, SWB or Aircraft south and east of GIRLY, KCEEE or Aircraft north and east of SJI, SJI or BESOM Q38 ROKIT ROKIT–STAR or Aircraft east of PXV, PXV Q29 HARES SWB or Aircraft north and west of PXV, PROWL Q33 DHART SWB
Jacksonville	GADAY ZOOSS TAY Aircraft through ZHU airspace remain south of ZME and ZTL airspace or ZOOSS TAY

John Wayne–Orange County	HEC, PGS, BLD or Aircraft south of TBC from ZAB airspace, HIPPI
Kansas City Terminal Area	LMN BRAYMER–STAR or PWE ROBINSON–STAR or EMP JHAWK–STAR
Las Vegas	DILCO, LIDAT, IGM or Aircraft over PGA or north of PGA KSINO or Aircraft south of PGA PGS LYNSY
Los Angeles Terminal Area	Aircraft North of TBC, HEC, PGS or Aircraft South of TBC from ZAB airspace, HIPPI, MESSI
Miami Terminal Area	CEW DEFUN Q104 CYY DEEDS (RNAV)–STAR Aircraft through ZHU airspace remain south ZME and ZTL airspace or SZW HEVVN Q104 CYY DEEDS (RNAV)–STAR
Minneapolis Terminal Area	Aircraft from north, west, south, FAR GOPHER–STAR or RWF SKETR–STAR or ALO KASPR–STAR or BRD GOPHER–STAR or BAE EAU CLAIRE–STAR or FOD TWOLF–STAR
Memphis Terminal Area	ARG, BWG, FSM, PXV, LIT, RZC, SQS, VUZ, BNA, GQO, ELD
Naples, FL	CEW DEFUN Q104 PLYER PIKKR (RNAV)–STAR Aircraft through ZHU AIRSPACE remain south of ZME and ZTL airspace or SZW HEVVN Q104 PLYER PIKKR (RNAV)–STAR
Nashville	CCT, GHM, GUITR, TINGS, VOLLS
New Orleans Terminal Area	BLUEZ, GPT, LCH, MCB, TBD, FATSO
Oakland	ILA or KATTS PAMMY or Aircraft over or south of a line ILC J16 DVC REANA KATTS PAMMY or Aircraft from north of ILC, JOPER PAMMY or KATTS PAMMY or Aircraft over or south of ILC, REANA KATTS PAMMY
Orlando Terminal Area	GADAY Q108 CLAWZ LEESE–STAR Aircraft through ZHU airspace remain south of ZME/ZTL airspace or OTK LEESE–STAR

Palm Beach, FL	CEW DEFUN Q112 INPIN GULLO (RNAV)–STAR Aircraft through ZHU airspace remain south of ZME and ZTL airspace or SZW INPIN GULLO (RNAV)–STAR
Phoenix	CORKR DRK or Aircraft from ZDV airspace, GUP or Aircraft from ZAB airspace, ZUN, MOHAK, SSO or VYLLA TUS
Phoenix Satellites	FLG, SSO, MOHAK or VYLLA, TUS
Portland, OR Terminal Area	ARNIT BONVL–STAR or LARNO BONVL–STAR or MOXEE MOXEE–STAR
St. Louis Terminal Area	SGF TRAKE–STAR or BUM TRAKE–STAR or ANX TRAKE–STAR or LMN IRK RIVRS–STAR or RBS VANDALIA–STAR
Salt Lake City Terminal Area	JNC J12 HELPR SPANE–STAR or EKR MTU SPANE–STAR or BCE DTA–TCH or MLF DTA–TCH or BVL BONNEVILLE–STAR or BYI BEARR–STAR or PIH BEARR–STAR or DBS BRIGHAM CITY–STAR or JAC BRIGHAM CITY–STAR or BPI BRIGHAM CITY–STAR or OCS BRIGHAM CITY–STAR
San Diego Terminal Area	EED, LAX, GBN
Santa Ana	HEC, PGS, BLD, HIPPI
San Antonio Terminal Area	IDU, CSI, JCT, LLO, CRP, LRD or West of a north–south line at LFK, BLEWE or East of a north–south line at LFK, IDU

San Francisco	FMG GOLDEN GATE–STAR or MVA MODESTO–STAR or ENI GOLDEN GATE–STAR or OAL MODESTO–STAR or South of a line ILC to DVC, REANA KATTS OAL MODESTO–STAR
San Jose	FMG HYP EL NIDO–STAR or OAL HYP EL NIDO–STAR or ENI GOLDEN GATE–STAR or South of a line ILC to DVC, REANA KATTS KICHI CANDA EL NIDO–STAR
Seattle Terminal Area	Aircraft From northeast, southeast, south, TEMPL GLASR–STAR or SUNED CHINS–STAR or BTG OLMYPIA–STAR
Southwest Florida Airports RSW and FMY	CEW DEFUN Q104 SWABE JOSFF–STAR Aircraft through ZHU airspace remain south of ZME and ZTL airspace or SZW HEVVN Q104 SWABE JOSFF–STAR
Tampa Terminal Area	CEW DEFUN Q104 HEVVN DARBS–STAR Aircraft through ZHU airspace remain south of ZME and ZTL airspace or SZW DARBS–STAR
Tucson	DRK PXR or MOHAK GBN

VISUAL FLIGHT RULES (VFR) WAYPOINTS

VFR Waypoint names consist of five letters beginning with ''VP''. Stand–alone VFR Waypoints are portrayed on VFR Charts using the same four–point star symbol currently used for Instrument Flight Rules (IFR) Waypoints.

VFR Waypoints collocated with Visual Checkpoints (Visual Reporting Points) are portrayed with a Visual Check Point flag. The VFR Waypoint name is shown in parentheses adjacent to the Visual Check Point name.

VFR Waypoint names are not intended to be pronounceable and shall not be used in ATC communications.

CAUTION: GPS accuracy necessitates extra vigilance for other aircraft when navigating near any fix retrieved from a GPS database.

BALTIMORE–WASHINGTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPAXI	_____	N38°34.57′/W076°20.38′
VPONX	_____	N39°06.65′/W076°55.92′
VPOOP	_____	N38°56.32′/W076°36.90′

BOSTON HELICOPTER CHART

VPBAY	_____	N42°16.17′/W070°49.48′
VPBLT	_____	N42°19.67′/W070°53.40′
VPCGS	_____	N42°22.08′/W071°03.13′
VPEVS	_____	N42°23.52′/W071°04.10′
VPFEN	_____	N42°12.58′/W071°08.88′
VPFRE	_____	N42°25.03′/W071°12.32′
VPGVL	_____	N42°21.88′/W070°52.18′
VPHAM	_____	N42°30.13′/W071°07.15′
VPPIK	_____	N42°20.37′/W071°15.93′
VPQUA	_____	N42°12.10′/W071°04.78′
VPQUB	_____	N42°12.60′/W070°59.83′
VPSPF	_____	N42°24.20′/W071°09.47′
VPTOB	_____	N42°31.42′/W070°59.82′
VPWAN	_____	N42°36.88′/W071°19.45′

BOSTON TERMINAL AREA CHART

VPCOH	Cohasset	N42°13.58′/W070°48.94′
VPCUT	Cuttyhunk Harbor	N41°25.50′/W070°55.03′
VPFRA	Framingham Shopping Center	N42°18.16′/W071°23.65′
VPHOL	Woods Hole	N41°31.06′/W070°40.60′
VPHUL	Hull	N42°18.20′/W070°55.30′
VPLPT	Nantucket Great Point	N41°23.41′/W070°02.78′
VPNED	Needham Towers	N42°18.51′/W071°14.64′
VPPEA	Peabody Shopping Center	N42°32.52′/W070°56.69′
VPROC	Rockingham Race Track	N42°46.29′/W071°13.57′
VPSCI	Scituate	N42°11.89′/W070°43.69′
VPTPT	Nantucket Third Point	N41°18.51′/W070°03.37′
VPTUC	Tuckernuck	N41°18.31′/W070°15.43′
VPWAK	Wakefield	N42°30.72′/W071°05.24′
VPWAN	Wang Towers	N42°36.88′/W071°19.45′

CHARLOTTE SECTIONAL CHART

VPATO	_____	N34°37.37′/W076°31.47′
VPAVA	_____	N34°57.00′/W077°16.50′
VPBFE	_____	N32°16.38′/W080°47.50′
VPBRA	_____	N36°13.75′/W076°08.08′
VPGCE	_____	N36°03.90′/W076°36.42′
VPGHI	_____	N35°15.30′/W075°31.25′
VPGIO	_____	N35°32.50′/W076°37.33′
VPKJU	_____	N35°26.58′/W076°10.22′
VPLMN	_____	N34°55.43′/W077°46.42′
VPMAB	_____	N34°42.20′/W077°03.50′
VPNPO	ISLE OF PALMS	N32°47.78′/W079°46.45′
VPOKY	_____	N35°06.53′/W075°59.17′
VPREP	_____	N32°33.98′/W080°21.82′
VPRRS	_____	N33°25.45′/W079°07.60′
VPUMO	_____	N35°35.63′/W075°28.08′
VPWZO	_____	N36°00.87′/W075°40.07′
VPZIE	_____	N32°01.62′/W080°53.42′

CHICAGO SECTIONAL CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCOH	_____	N31°49.35′/W081°51.07′

DENVER TERMINAL AREA CHART/FLYWAY CHART

VPBEN	_____	N39°44.28′/W104°26.00′
VPFTG	_____	N39°44.35′/W104°32.75′
VPNIC	NORTH INTERCHANGE	N39°58.90′/W104°59.27′

HOUSTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPBWY	_____	N29°46.25′/W095°09.24′
VPDTN	_____	N29°46.59′/W095°22.01′
VPGLA	_____	N30°08.32′/W095°06.62′
VPGLB	_____	N30°07.80′/W094°55.70′
VPKTY	_____	N29°47.05′/W095°44.92′
VPPLN	_____	N30°08.80′/W095°50.42′
VPRSN	_____	N29°30.00′/W095°41.00′
VPSND	_____	N29°23.13′/W095°28.86′
VPSNT	_____	N29°49.29′/W094°53.94′
VPTNE	_____	N29°47.48′/W095°03.34′
VPTNW	_____	N29°47.06′/W095°33.81′
VPTRK	_____	N29°24.06′/W095°10.44′

JACKSONVILLE SECTIONAL CHART

VPAFI	_____	N31°49.35′/W081°51.07′
VPAFY	_____	N30°07.00′/W081°21.33′
VPBEC	_____	N29°46.25′/W081°15.10′
VPCJA	_____	N29°30.00′/W081°06.00′
VPCKY	_____	N28°46.50′/W082°34.00′
VPCNY	_____	N28°30.00′/W080°45.00′
VPDAD	DADE CITY	N28°22.57′/W082°11.25′
VPDAR	_____	N31°22.38′/W081°24.13′
VPDFI	_____	N29°00.17′/W081°20.85′
VPDUT	_____	N27°37.70′/W082°09.10′
VPEAR	CLEARWATER BEACH	N27°58.67′/W082°49.83′
VPEGV	_____	N29°39.97′/W081°24.87′
VPFFU	_____	N28°57.08′/W081°00.33′
VPGPE	ST PETE BEACH	N27°43.50′/W082°44.67′
VPHAA	_____	N30°04.02′/W083°40.02′
VPHUC	_____	N28°19.87′/W082°43.77′
VPIWA	MIDWAY	N31°48.33′/W081°25.85′
VPJMY	_____	N29°26.92′/W081°18.27′
VPKER	LAKE PARKER	N28°04.00′/W081°56.00′
VPLEV	_____	N28°48.00′/W080°52.00′
VPLJA	_____	N29°00.00′/W080°51.00′
VPMAI	_____	N30°50.02′/W084°56.63′
VPTLH	_____	N30°32.70′/W083°52.22′
VPXZY	_____	N29°35.00′/W083°10.00′
VPYIW	_____	N30°42.28′/W081°27.25′
VPZIE	_____	N32°01.62′/W080°53.42′

KANSAS CITY SECTIONAL CHART

VPAGO	_____	N37°50.33′/W090°29.03′
VPBEK	_____	N37°15.07′/W092°30.67′
VPDEN	_____	N37°46.75′/W092°19.20′
VPENE	_____	N37°44.75′/W091°55.78′
VPESS	_____	N36°59.48′/W091°00.88′
VPFME	_____	N37°41.00′/W092°38.33′
VPGXY	_____	N37°15.50′/W091°40.17′
VPMBE	_____	N37°11.08′/W090°27.92′
VPMKE	_____	N37°24.47′/W092°40.00′
VPROV	_____	N38°01.72′/W091°12.81′
VPUTT	_____	N37°52.05′/W092°01.20′

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPWOC	_____	N37°18.03′/W092°18.63′
VPWRO	_____	N37°39.12′/W091°45.68′
VPXIZ	_____	N37°26.60′/W092°05.42′

KANSAS CITY TERMINAL AREA CHART

VPATN	ATCHISON	N39°33.62′/W095°07.65′
VPBGS	BLUE SPRINGS	N39°01.82′/W094°16.32′
VPBSP	BONNER SPRINGS	N39°03.78′/W094°53.10′
VPCHB	CHOUTEAU BRIDGE	N39°08.77′/W094°32.03′
VPDSO	DE SOTO	N38°58.68′/W094°58.48′
VPESG	EXCELSIOR SPRINGS	N39°20.68′/W094°13.77′
VPGTB	GARRETSBURG	N39°40.92′/W094°41.45′
VPLAT	LATHROP WATER TANK	N39°32.87′/W094°20.00′
VPLEN	LENEXA	N38°57.77′/W094°43.68′
VPLVL	LONGVIEW LAKE	N38°54.63′/W094°28.28′
VPMCL	MC LOUTH	N39°11.65′/W095°12.50′
VPNHA	NASHUA	N39°17.83′/W094°34.80′
VPSCX	SPORTS COMPLEX	N39°03.00′/W094°29.02′
VPSKR	SUGAR CREEK REFINERY	N39°07.00′/W094°27.02′
VPSPK	SWOPE PARK	N39°00.47′/W094°31.93′
VPTSK	TWIN STACKS	N39°09.05′/W094°38.22′
VPWOF	WORLDS OF FUN	N39°10.42′/W094°29.12′

KLAMATH FALLS SECTIONAL CHART

VPORO	_____	N43°57.38′/W123°02.22′

LOS ANGELES HELICOPTER CHART

VPANA	_____	N33°44.43′/W117°50.03′
VPART	MAGNOLIA	N33°51.45′/W117°58.92′
VPAUT	HWY 91 & 55	N33°50.63′/W117°49.57′
VPBOB	_____	N33°59.60′/W117°21.45′
VPCAR	_____	N33°49.90′/W118°17.23′
VPCNG	CONEJO GRADE US HWY 101	N34°12.54′/W118°59.61′
VPCOR	_____	N33°52.90′/W117°32.95′
VPCRX	_____	N34°01.40′/W117°44.88′
VPCSU	CSU CHANNEL ISLANDS	N34°09.76′/W119°02.53′
VPDOW	_____	N33°56.47′/W118°05.80′
VPELA	_____	N34°00.98′/W118°10.35′
VPETY	_____	N33°38.70′/W117°44.12′
VPFCB	_____	N34°02.03′/W118°01.63′
VPFPL	OXNARD FINANCIAL PLAZA	N34°13.71′/W119°10.39′
VPGOL	_____	N34°09.33′/W118°17.37′
VPIMP	_____	N33°55.85′/W118°16.85′
VPKAT	_____	N33°48.23′/W117°54.22′
VPKEL	_____	N34°03.92′/W117°48.40′
VPLAC	_____	N34°03.75′/W118°14.93′
VPLLU	_____	N34°03.85′/W117°17.82′
VPLQM	QUEEN MARY	N33°45.17′/W118°11.37′
VPLRT	SANTA ANITA RACE TRACK	N34°08.45′/W118°02.65′
VPLVT	VINCENT THOMAS BRIDGE	N33°44.97′/W118°16.32′
VPMDR	_____	N33°59.27′/W118°23.97′
VPNEW	NEWHALL PASS	N34°20.18′/W118°30.72′
VPNUY	_____	N34°09.63′/W118°28.18′
VPPCH	_____	N33°28.07′/W117°40.32′
VPPKC	_____	N34°03.32′/W118°12.83′
VPPOR	_____	N34°00.10′/W117°50.12′
VPRRT	_____	N33°59.37′/W118°16.83′
VPSEP	_____	N34°05.80′/W118°28.63′
VPSFR	_____	N34°17.45′/W118°28.07′
VPSTC	SATICOY BRIDGE	N34°16.62′/W119°08.34′
VPSTK		N34°13.97′/W118°24.60′

LOS ANGELES SECTIONAL CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCNG	CONEJO GRADE US HWY 101	N34°12.54′/W118°59.61′
VPCSU	CSU CHANNEL ISLANDS	N34°09.76′/W119°02.53′
VPFPL	OXNARD FINANCIAL PLAZA	N34°13.71′/W119°10.39′
VPSTC	SATICOY BRIDGE	N34°16.62′/W119°08.34′

LOS ANGELES TERMINAL AREA CHART/FLYWAY CHART

VPCNG	CONEJO GRADE US HWY 101	N34°12.54′/W118°59.61′
VPCSU	CSU CHANNEL ISLANDS	N34°09.76′/W119°02.53′
VPGTY	GETTY CENTER	N34°04.84′/W118°28.66′
VPLBP	BANNING PASS	N33°56.05′/W116°59.63′
VPLCC	CHAFFEY COLLEGE	N34°08.87′/W117°34.33′
VPLCP	CAJON PASS	N34°18.07′/W117°27.68′
VPLDL	DISNEYLAND	N33°48.72′/W117°55.13′
VPLDP	DANA POINT	N33°27.62′/W117°42.87′
VPLDS	DODGER STADIUM	N34°04.42′/W118°14.42′
VPLFX	91/605 INTERCHANGE	N33°52.38′/W118°06.08′
VPLGP	GRIFFITH PARK OBSERVATORY	N34°07.10′/W118°18.02′
VPLHF	110/405 FWYS	N33°51.42′/W118°17.10′
VPLHP	HUNTINGTON PIER	N33°39.32′/W118°00.25′
VPLKH	KING HARBOR	N33°50.75′/W118°23.88′
VPLLC	L.A. COLISEUM	N34°00.83′/W118°17.27′
VPLLM	LAKE MATHEWS	N33°50.58′/W117°26.85′
VPLMM	MAGIC MOUNTAIN	N34°26.20′/W118°36.28′
VPLMS	MILE SQUARE PARK	N33°43.40′/W117°56.77′
VPLPD	PRADO DAM	N33°53.40′/W117°38.48′
VPLPP	PACIFIC PALISADES	N34°02.13′/W118°32.15′
VPLQM	QUEEN MARY	N33°45.17′/W118°11.37′
VPLRB	ROSE BOWL	N34°09.67′/W118°10.05′
VPLRT	SANTA ANITA RACE TRACK	N34°08.45′/W118°02.65′
VPLSA	SANTA ANA CANYON	N33°52.03′/W117°42.68′
VPLSB	SANTA FE FLOOD BASIN	N34°07.72′/W117°57.30′
VPLSC	STATE COLLEGE	N33°52.97′/W117°53.13′
VPLSF	SAN FERNANDO RESERVOIR	N34°17.87′/W118°29.00′
VPLSP	SIGNAL PEAK	N33°36.33′/W117°48.63′
VPLSR	HAWTHORNE & 405 FREEWAY	N33°53.07′/W118°21.13′
VPLSS	SANTA SUSANA PASS	N34°16.00′/W118°38.43′
VPLTW	TUJUNGA WASH & FOOTHILL	N34°16.40′/W118°20.30′
VPLVT	VINCENT THOMAS BRIDGE	N33°44.97′/W118°16.32′
VPLWT	WATER TANK	N34°10.82′/W118°46.27′
VPNEW	NEWHALL PASS	N34°20.18′/W118°30.72′
VPSTC	SATICOY BRIDGE	N34°16.62′/W119°08.34′

MIAMI SECTIONAL CHART

VPACH	HOLLYWOOD BEACH	N26°00.92′/W080°06.93′
VPBOV	_____	N27°57.00′/W080°46.75′
VPCLE	_____	N26°27.07′/W082°00.88′
VPCTE	_____	N26°09.28′/W081°20.70′
VPDAD	DADE CITY	N28°22.57′/W082°11.25′
VPDUT	_____	N27°37.70′/W082°09.10′
VPDZE	_____	N27°19.00′/W080°44.17′
VPEAR	CLEARWATER BEACH	N27°58.67′/W082°49.83′
VPEDY	ANDYTOWN TOLLGATE	N26°08.78′/W080°28.00′
VPFAH	_____	N26°25.40′/W081°29.67′
VPGPE	ST PETE BEACH	N27°43.50′/W082°44.67′
VPHRO	_____	N27°05.97′/W082°12.20′
VPHUC	_____	N28°19.87′/W082°43.77′
VPIBR	_____	N27°12.47′/W081°40.22′
VPKER	LAKE PARKER	N28°04.00′/W081°56.00′
VPKOE	_____	N24°40.08′/W081°20.55′
VPLYY	_____	N24°49.07′/W080°49.17′
VPMBO	GULFSTREAM PARK	N25°58.57′/W080°08.17′
VPOBA	PUMPING STATION	N26°28.30′/W080°26.75′
VPRBI	_____	N25°50.67′/W080°55.18′
VPRNL	RANGER STATION	N25°22.92′/W080°36.58′
VPWMO	_____	N27°03.00′/W080°35.00′

MIAMI TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPACH	HOLLYWOOD BEACH	N26°00.92′/W080°06.93′
VPEDY	ANDYTOWN TOLLGATE	N26°08.78′/W080°28.00′
VPMBO	GULFSTREAM PARK	N25°58.57′W080°08.17′
VPOBA	PUMPING STATION	N26°28.30′/W080°26.75′
VPRBI	_____	N25°50.67′/W080°55.18′
VPRNL	RANGER STATION	N25°22.92′/W080°36.58′

NEW ORLEANS SECTIONAL CHART

VPGPT	_____	N30°25.95′/W089°05.62′
VPLIP	PHILLIPS INLET	N30°16.23′/W085°59.25′
VPMAI	_____	N30°50.02′/W084°56.63′
VPMOB	_____	N30°23.00′/W088°31.72′
VPRAM	_____	N30°18.95′/W089°35.88′
VPRER	_____	N30°13.87′/W085°20.67′
VPRIV	_____	N30°54.85′/W087°57.82′
VPSAW	_____	N30°49.65′/W089°07.42′
VPTHR	_____	N30°19.93′/W087°08.50′

NEW YORK HELICOPTER CHART

VPJAY	_____	N40°59.00′/W073°07.00′
VPLYD	_____	N40°57.37′/W073°29.59′
VPROK	_____	N40°52.70′/W073°44.24′

PHOENIX TERMINAL AREA CHART/FLYWAY CHART

VPALL	ALLENVILLE	N33°20.97′/W112°35.20′
VPAQU	AQUEDUCT PUMPING STATION	N33°40.05′/W112°41.38′
VPARM	ARROWHEAD MALL	N33°38.52′/W112°13.48′
VPAWG	AHWATUKEE GOLF COURSE	N33°19.98′/W111°59.08′
VPAZM	ARIZONA MILLS	N33°23.43′/W111°57.88′
VPBAR	BARTLETT DAM	N33°49.10′/W111°37.92′
VPCCC	COUNTRY CLUB & CANAL	N33°30.73′/W111°50.37′
VPCNL	CANAL	N33°33.23′/W111°46.89°
VPFRB	FIREBIRD LAKE	N33°16.35′/W111°58.10′
VPFTN	FOUNTAIN HILLS	N33°36.12′/W111°42.72′
VPGLX	GILA CROSSING	N33°16.55′/W112°10.08′
VPGPP	GLENDALE POWER PLANT	N33°33.27′/W112°13.00′
VPMAR	MARICOPA	N33°03.42′/W112°02.88′
VPMHS	MESQUITE HIGH SCHOOL	N33°20.53′/W111°49.58′
VPNRV	NEW RIVER	N33°55.08′/W112°08.45′
VPNTT	NORTH TEST TRACK	N33°03.50′/W111°55.83′
VPPIR	PIR	N33°22.52′/W112°18.90′
VPQTR	QUINTERO GOLF COURSE	N33°49.53′/W112°23.58′
VPRVC	RIO VERDE COMMUNITY	N33°44.37′/W111°39.62′
VPSMC	SOUTH MOUNTAIN COLLEGE	N33°23.02′/W112°02.12′
VPSQP	SQUAW PEAK	N33°32.83′/W112°01.27′
VPSSS	SUPERSTITION SPRINGS MALL	N33°23.50′/W111°41.37′
VPSTN	SANTAN MOUNTAINS	N33°09.23′/W111°40.92′
VPSTT	SOUTH TEST TRACK	N32°56.25′/W111°59.67′
VPZZZ	_____	N33°20.18′/W111°26.53′

ST LOUIS TERMINAL AREA CHART/FLYWAY CHART

VPAGN	TV ANTENNA	N38°32.08′/W090°22.42′
VPBPE	_____	N38°23.80′/W090°20.38′
VPCJY	HOLIDAY SHORES	N38°55.00′/W089°56.00′
VPCOJ	WINFIELD DAM	N39°00.28′/W090°41.23′
VPDFA	JEFFERSON BARRACKS BRIDGE	N38°29.18′/W090°16.47′
VPEAZ	BUSCH STADIUM	N38°37.43′/W090°11.55′
VPEDZ	WATER TANKS	N38°45.30′/W090°34.87′
VPEGR	GAS TANKS	N38°35.80′/W090°19.32′
VPEOX	ST PETERS	N38°47.17′/W090°39.25′

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPFAI	HOWELL ISLAND	N38°40.00′/W090°43.00′
VPFFY	_____	N38°55.37′/W090°17.30′
VPGPF	_____	N38°35.60′/W090°26.92′
VPGVI	_____	N38°32.30′/W090°27.80′
VPHRQ	CHAIN OF ROCKS BRIDGE	N38°45.88′/W090°10.42′
VPIBO	WATERLOO	N38°20.00′/W090°09.00′
VPJMU	HORSESHOE LAKE	N38°41.00′/W090°05.00′
VPKNY	PACIFIC	N38°29.00′/W090°44.00′
VPLES	ST CHARLES	N38°47.00′/W090°30.00′
VPLIW	SIX FLAGS	N38°30.67′/W090°40.47′
VPLXU	GATEWAY ARCH	N38°37.50′/W090°11.00′
VPNSY	WOOD RIVER REFINERIES	N38°50.00′/W090°05.00′
VPNZY	WENTZVILLE	N38°48.83′/W090°50.98′
VPRAZ	JERSEYVILLE	N39°07.00′/W090°20.00′
VPRMO	FOREST PARK	N38°38.00′/W090°17.00′
VPWKO	COLUMBIA	N38°27.00′/W090°12.00′
VPXXI	MILLSTADT	N38°27.50′/W090°05.68′
VPYID	MOSENTHEIN ISLAND	N38°43.00′/W090°12.25′

SALT LAKE CITY HELICOPTER CHART

VPAIR	SALTAIR	N40°44.85′/W112°11.22′
VPBEE	SOUTH INTERCHANGE	N40°38.18′/W111°54.23′
VPBRN	BARN	N40°54.28′/W112°10.15′
VPCAP	STATE CAPITOL	N40°46.67′/W111°53.25′
VPCHS	_____	N40°42.28′/W112°05.92′
VPCOP	BINGHAM COPPER MINE	N40°31.38′/W112°09.00′
VPCWY	CAUSEWAY	N41°05.37′/W112°07.17′
VPCYN	PARLEYS CANYON	N40°42.67′/W111°48.10′
VPFPC	FREE PORT CENTER	N41°05.92′/W112°02.27′
VPFPK	FRANCIS PEAK	N41°01.98′/W111°50.30′
VPGFS	GARFIELD STACK	N40°43.28′/W112°11.88′
VPHVE	SPAGHETTI BOWL	N40°43.50′/W111°54.22′
VPJRT	JORDAN RIVER TEMPLE	N40°35.02′/W111°55.58′
VPKSL	KSL ANTENNA	N40°46.80′/W112°05.80′
VPLGN	LAGOON AMUSEMENT PARK	N40°59.08′/W111°53.57′
VPMDH	MCKAY DEE HOSPITAL	N41°11.50′/W111°57.08′
VPMMT	MICROWAVE TOWERS	N40°48.50′/W111°53.37′
VPMSH	_____	N41°01.67′/W112°02.47′
VPNSL	_____	N40°50.15′/W111°54.90′
VPNTP	_____	N41°03.57′/W112°14.23′
VPOGE	GRAIN ELEVATOR	N41°13.13′/W112°00.45′
VPOPS	POWER STATION	N41°20.38′/W112°02.78′
VPPEN	STATE PRISON	N40°29.88′/W111°53.62′
VPPPT	PROMONTORY POINT	N41°12.28′/W112°25.73′
VPPTM	POINT OF THE MOUNTAIN	N40°27.42′/W111°54.83′
VPPVO	PROVO CANYON	N40°18.77′/W111°39.45′
VPRWY	_____	N40°48.48′/W112°00.33′
VPSLC	I–15/I–80 INTERCHANGE	N40°45.83′/W111°54.85′
VPTIP	SOUTH TIP	N40°50.93′/W112°10.92′
VPWBR	WEBER CANYON	N41°08.17′/W111°54.83′
VPWBT	_____	N40°38.00′/W112°03.33′

SALT LAKE CITY TERMINAL AREA CHART/FLYWAY CHART

VPAIR	SALTAIR	N40°44.85′/W112°11.22′
VPBEE	SOUTH INTERCHANGE	N40°38.18′/W111°54.23′
VPBRN	BARN	N40°54.28′/W112°10.15′
VPCAP	STATE CAPITOL	N40°46.67′/W111°53.25′
VPCHS	_____	N40°42.28′/W112°05.92′
VPCOP	BINGHAM COPPER MINE	N40°31.38′/W112°09.00′
VPCVI	CENTERVILLE INTERCHANGE	N40°55.30′/W111°53.43′
VPCWY	CAUSEWAY	N41°05.37′/W112°07.17′
VPCYN	PARLEYS CANYON	N40°42.67′/W111°48.10′
VPFPC	FREE PORT CENTER	N41°05.92′/W112°02.27′
VPFPK	FRANCIS PEAK	N41°01.98′/W111°50.30′
VPGFS	GARFIELD STACK	N40°43.28′/W112°11.88′

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPHVE	SPAGHETTI BOWL	N40°43.50′/W111°54.22′
VPJRT	JORDAN RIVER TEMPLE	N40°35.02′/W111°55.58′
VPKSL	KSL ANTENNA	N40°46.80′/W112°05.80′
VPLGN	LAGOON AMUSEMENT PARK	N40°59.08′/W111°53.57′
VPMDH	MCKAY DEE HOSPITAL	N41°11.50′/W111°57.08′
VPMMT	MICROWAVE TOWERS	N40°48.50′/W111°53.37′
VPMSH	_____	N41°01.67′/W112°02.47′
VPNSL	_____	N40°50.15′/W111°54.90′
VPNTP	_____	N41°03.57′/W112°14.23′
VPOGE	GRAIN ELEVATOR	N41°13.13′/W112°00.45′
VPOPS	POWER STATION	N41°20.38′/W112°02.78′
VPPEN	STATE PRISON	N40°29.88′/W111°53.62′
VPPPT	PROMONTORY POINT	N41°12.28′/W112°25.73′
VPPTM	POINT OF THE MOUNTAIN	N40°27.42′/W111°54.83′
VPPVO	PROVO CANYON	N40°18.77′/W111°39.45′
VPRWY	_____	N40°48.48′/W112°00.33′
VPSLC	I–15/I–80 INTERCHANGE	N40°45.83′/W111°54.85′
VPTIP	SOUTH TIP	N40°50.93′/W112°10.92′
VPUOU	U OF U EVENTS CENTER	N40°45.73′/W111°50.28′
VPWBR	WEBER CANYON	N41°08.17′/W111°54.83′
VPWBT	_____	N40°38.00′/W112°03.33′
VPZOO	HOGLE ZOO	N40°45.00′/W111°48.95′

SAN DIEGO TERMINAL AREA CHART/FLYWAY CHART

VPLDP	DANA POINT	N33°27.62′/W117°42.87′
VPLSP	SIGNAL PEAK	N33°36.33′/W117°48.63′
VPOCN	_____	N33°14.15′/W117°26.63′
VPSBC	BARONA CASINO	N32°56.25′/W116°52.60′
VPSBL	_____	N33°05.18′/W117°18.55′
VPSBM	BLACK MOUNTAIN	N32°58.87′/W117°07.00′
VPSCF	_____	N32°48.55′/W117°09.17′
VPSCM	COWLES MOUNTAIN	N32°48.72′/W117°01.97′
VPSCP	CRYSTAL PIER	N32°47.77′/W117°15.42′
VPSCR	_____	N32°39.37′/W117°07.30′
VPSFB	IRON MOUNTAIN	N32°58.25′/W116°57.33′
VPSLJ	LAKE JENNINGS	N32°51.53′/W116°53.28′
VPSMB	_____	N32°45.57′/W117°12.22′
VPSMP	_____	N33°22.70′/W117°36.75′
VPSMS	MOUNT SOLEDAD	N32°50.40′/W117°15.10′
VPSMV	_____	N32°45.75′/W117°09.80′
VPSMW	MOUNT WOODSON	N33°00.52′/W116°58.23′
VPSOP	OTAY MESA PRISON	N32°35.82′/W116°55.28′
VPSOT	LOWER OTAY LAKE	N32°37.73′/W116°55.38′
VPSPL	SOUTH POINT LOMA	N32°39.90′/W117°14.55′
VPSPP	POWER PLANT	N33°08.25′/W117°20.23′
VPSQS	QUALCOMM STADIUM	N32°46.98′/W117°07.23′
VPSRT	DEL MAR RACE TRACK	N32°58.58′/W117°15.95′
VPSSM	SAN MIGUEL MOUNTAIN	N32°41.78′/W116°56.18′
VPSSV	SAN VICENTE ISLAND	N32°55.53′/W116°55.00′
VPSTP	TORREY PINES GOLF COURSE	N32°54.17′/W117°14.68′
VPSVA	_____	N33°11.48′/W117°16.38′

SAN FRANCISCO SECTIONAL CHART

VPKBG	KINGSBURY GRADE	N38°58.75′/W119°53.20′

SAN FRANCISCO TERMINAL AREA CHART/FLYWAY CHART

VPALT	ALTAMONT PASS	N37°44.35′/W121°35.42′
VPANT	ANTIOCH BRIDGE	N38°01.45′/W121°45.02′
VPBBR	BENICIA BRIDGE	N38°02.50′/W122°07.45′
VPCAL	CALAVERAS RESERVOIR	N37°28.16′/W121°48.93′
VPCBT	LAKE CHABOT	N37°43.68′/W122°06.94′
VPCOY	COYOTE HILLS	N37°32.50′/W122°05.06′
VPCQZ	CARQUINEZ BRIDGE	N38°03.66′/W122°13.52′
VPCRL	_____	N37°11.00′/W121°41.06′
VPCRY	CRYSTAL SPRINGS CAUSEWAY	N37°30.56′/W122°21.10′

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCSH	CAL STATE UNIVERSITY	N37°39.52′/W122°03.52′
VPDAM	DEL VALLE DAM	N37°36.91′/W121°44.78′
VPDLR	_____	N37°07.00′/W121°47.06′
VPDUB	DUBLIN	N37°42.06′/W121°55.36′
VPEMB	EMBASSY SUITES	N37°26.05′/W121°53.83′
VPGGF	GOLDEN GATE FIELDS	N37°53.07′/W122°18.71′
VPGIL	GILROY	N37°01.37′/W121°33.99′
VPHHH	HAMILTON	N38°03.58′/W122°30.66′
VPKGO	KGO	N37°31.58′/W122°06.10′
VPLEX	LEXINGTON RESERVOIR	N37°11.66′/W121°59.18′
VPMID	MID–SPAN SAN MATEO BRIDGE	N37°36.28′/W122°11.81′
VPMOR	MORMON TEMPLE	N37°48.46′/W122°11.95′
VPNUM	NUMMI PLANT	N37°29.56′/W121°56.58′
VPPAC	_____	N37°38.00′/W122°32.07′
VPPRU	PRUNEYARD	N37°17.33′/W121°56.01′
VPSAR	SARATOGA	N37°15.26′/W122°02.33′
VPSLA	SLAC/LINEAR ACCELERATOR	N37°24.75′/W122°14.35′
VPSTB	STINSON BEACH	N37°54.45′/W122°40.41′
VPSUN	SUNOL GOLF COURSE	N37°34.85′/W121°53.23′
VPUTC	U.T.C.	N37°13.93′/W121°41.35′
VPWAL	WALNUT CREEK	N37°53.78′/W122°04.30′
VPWAM	_____	N37°30.28′/W122°10.00′
VPWFR	CEMENT PLANT	N37°30.88′/W122°12.26′

TAMPA/ORLANDO TERMINAL AREA CHART/FLYWAY CHART

VPBOV	_____	N27°57.00′/W080°46.75′
VPCNY	_____	N28°30.00′/W080°45.00′
VPDAD	DADE CITY	N28°22.57′/W082°11.25′
VPDFI	_____	N29°00.17′/W081°20.85′
VPDUT	_____	N27°37.70′/W082°09.10′
VPEAR	CLEARWATER BEACH	N27°58.67′/W082°49.83′
VPFFU	_____	N28°57.08′/W081°00.33′
VPGPE	ST PETE BEACH	N27°43.50′/W082°44.67′
VPHUC	_____	N28°19.87′/W082°43.77′
VPKER	LAKE PARKER	N28°04.00′/W081°56.00′
VPLEV	_____	N28°48.00′/W080°52.00′
VPLJA	_____	N29°00.00′/W080°51.00′

WASHINGTON SECTIONAL CHART

VPACE	_____	N38°07.82′/W076°48.75′
VPAXI	_____	N38°34.57′/W076°20.38′
VPBRA	_____	N36°13.75′/W076°08.08′
VPGCE	_____	N36°03.90′/W076°36.42′
VPWZO	_____	N36°00.87′/W075°40.07′

VOR RECEIVER CHECKPOINTS AND VOR TEST FACILITIES (VOT)

The use of VOR airborne and ground checkpoints is explained in Aeronautical Information Manual. Basic Flight Information and ATC Procedures.

NOTE: Under columns headed ''Type of Checkpoint'' & ''Type of VOT Facility'' G stands for ground. A/ stands for airborne followed by figures (2300 or 1000–3000) indicating the altitudes above mean sea level at which the check should be conducted. Facilities are listed in alphabetical order, in the state where the checkpoints or VOTs are located.

ALABAMA

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Brookley (Mobile Downtown)	112.8/BFM	G	313	1.68	On runup area for rwy 14. VOR grand receiver checkpoint OTS indef.
Cairns AAF (Fort Rucker)	111.2/OZR	G	066	1.0	On runup pad Twy F.
Enterprise Muni	116.6/EDN	A/2000	341	7.4	Red/white twr.
Monroeville (Monroe Co Arpt)	116.8/MVC	G	196	0.6	Rwy 03 runup area/turnaround pad.
Montgomery (Montgomery Rgnl/ Dannelly Field)	112.1/MGM	G	318	6.2	On Twy C north of Twy A.
Talladega Muni	108.8/TDG	A/2000	084	9.0	Over center of segmented circle.
Crimson (Tuscaloosa Rgnl)	117.8/LDK	G	238	4.2	On centerline of Twy midway between ramp and rwy.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Birmingham–Shuttlesworth Intl	110.0	G	
Huntsville Intl–Carl T Jones Fld	111.0	G	

FLORIDA

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Cypress (Naples Muni)	108.6/CYY	G	121	0.6	On runup area Rwy 32.
Crestview (Bob Sikes)	115.9/CEW	A/1200	106	8.6	Over rotating bcn.
Lakeland Linder Rgnl	116.0/LAL	G	038	0.5	On NE end of Twy C.
	116.0/LAL	G	283	1.1	On Twy A–1.
Melbourne Intl	110.0/MLB	G	184	0.6	SW corner of arpt at intersection of Twy C and D.
Ocala Intl–Jim Taylor Fld	113.7/OCF	G	167	1.0	On taxiway E adjacent to E9.
Orlando (Executive)	112.2/ORL	G	324	.5	On Twy E near AER 13.
		G	311	.5	On Twy H near AER 13.
Pahokee (Palm Beach Co Glades)	115.4/PHK	A/1500	022	13	Over radio twr at intersection of 2 canals.
Panama City–Bay Co Intl	114.3/PFN	G	190	0.5	Main terminal ramp.

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
		G	154	0.6	Rwy 32 run–up/Twy G.
		G	208	0.6	Rwy 5 run–up/Twy D.
St. Petersburg–Clearwater Intl	116.4/PIE	G	046	0.4	On circle located NE end of Twy M.
Vero Beach Muni	117.3/VRB	G	111	4.4	Runup area Rwy 29R.
		G	114	4	Compass rose on taxiway E.
		G	116	3.6	Runup area Rwy 11R.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Daytona Beach Intl	111.0	G	
Jacksonville Intl	111.0	G	Unuseable E of Twy F.
Miami Intl	112.0	G	
Palm Beach Intl	109.0	G	
Tallahassee Rgnl	111.0	G	
Tampa Intl	111.0	G	

GEORGIA

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Athens (Madison Muni)	109.6/AHN	A/2000	199	21	Over center of rwy.
Athens (Athens/Ben Epps)	109.6/AHN	G	284	0.5	Twy A2.
Atlanta (Dekalb–Peachtree)	116.6/PDK	G	004	0.5	On runup area Rwy 20L. VOR ground checkpoint unavailable.
		G	218	0.5	On runup area Rwys 02L and 02R.
Brunswick (Malcolm McKinnon)	109.8/SSI	A/1050	029	7.2	Over rotating bcn.
Columbus Metropolitan	117.1/CSG	G	146	7.1	FBO ramp in front of ASOS equipment.
Dublin (W H 'Bud' Barron)	113.1/DBN	G	270	7.6	Ramp.
Foothills (Toccoa RG Letourneau Fld)	113.4/ODF	A/2000	179	6	Over rotating bcn.
Hunter	111.6/SVN	A/1500	090	15.5	Over lighthouse.
Hunter AAF	111.6/SVN	G	271	1.2	On Twy 6.
Lawson AAF	111.4/LSF	G	356	.6	On painted circle at taxiway intersection 580′ NW of twr.
Macon	114.2/MCN	A/2000	028	13.6	Over oil tank.
		A/2000	320	9.5	Over dam.
Pecan (Southwest Georgia Rgnl)	116.1/PZD	A/1000	145	9	Over rotating bcn E side of arpt.
Rome (Richard B Russel)	115.4/RMG	G	348	11.5	At intersection of twy 200′ S of terminal building. VOR ground checkpoint unavailable.
Savannah	112.7/SAV	A/1500	097	19.6	Over red and white lighthouse.
Valdosta Rgnl	114.8/OTK	G	131	0.6	On taxiway at apch end rwy 35.
Vienna (Crisp County–Cordele)	116.5/VNA	A/1300	226	19	Over center of NE/SW rwy.
Waycross–Ware Co	110.2/AYS	A/1200	099	8	Over fire twr W side arpt.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Atlanta (Hartsfield–Jackson Atlanta Intl) ..	111.0	G	
(Atlanta Muni)	111.0	G	VOT OTS indef.
Brunswick Golden Isles	111.0	G	
Savannah/Hilton Head Intl	111.0	G	

KENTUCKY

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Central City (Muhlenberg Co)	109.8/CCT	A/2500	153	10.6	Over intersection of Rwy 23 and central taxiway.
Clarksville (Campbell AAF)	110.6/CKV	G	307	4.9	On taxiway 6 center romeo helipad.
Clarksville (Hopkinsville–Christian Co)	110.6/CKV	A/2000	345	13.5	Over hangar.
Fort Knox (Godman AAF)	109.6/FTK	A/2000	270	9.2	W of Godman AAF over a 298 ft twr.
Frankfort (Capital City)	109.4/FFT	G	082	.7	Runup pad Rwy 24.
London (London–Corbin Arpt–Magee Fld)	116.1/LOZ	G	033	3.8	On parking ramp taxiway entry.
Owensboro–Daviess Co.	108.6/OWB	G	176	.7	On taxiway at apch end Rwy 36.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Louisville Intl–Standiford Fld	111.0	G	

NORTH CAROLINA

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Barretts Mountain (Hickory Rgnl)	110.8/BZM	A/2200	229	10.2	Over apch end Rwy 24.
Cofield (Tri–Co)	114.6/CVI	A/4500	259	15.3	Distance 20/25.
Fayetteville Rgnl/Grannis Fld	108.8/FAY	G	278	0.6	On runup area Rwy 04.
Greensboro (Lexington Muni)	116.2/GSO	A/2300	228	22	Over rotating bcn atop W end of building.
Greensboro (Piedmont Triad Intl)	116.2/GSO	G	036	3.5	On Twy M3. Checkpoint OTS indef.
Greensboro (Smith Reynolds)	116.2/GSO	A/2000	297	13.5	Over atct.
Kinston Rgnl Jetport At Stallings Fld	109.6/ISO	G	230	3.1	Twy A between A4 and A5.
Raleigh–Durham Intl	117.2/RDU	G	244	0.85	At end of taxiway to Rwy 05R.
Sugarloaf Mountain (Asheville Rgnl)	112.2/SUG	A/3200	280	13.6	Over atct. Airborne checkpoint unusable indef.
Tar River	117.8/TYI	A/1500	260	5.8	Over smoke stack at power house.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Charlotte (Charlotte/Douglas Intl)	112.0	G	
Hickory Rgnl	110.0	G	

SOUTH CAROLINA

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Charleston AFB/Intl	113.5/CHS	G	225	.7	Runup pad Rwy 03.
	113.5/CHS	G	009	.5	Runup pad Rwy 21.
	113.5/CHS	G	337	1.2	Runup pad Rwy 15.
	113.5/CHS	G	331	0.3	Runup area for Rwy 33.
Electric City (Anderson Rgnl)	108.6/ELW	G	039	5.5	On ramp in front of terminal bldg.
Grand Strand	117.6/CRE	A/1100	238	6	Over white water tank.
	117.6/CRE	G	213	0.7	On runup pad Rwy 05.
Greenwood Co	115.5/GRD	G	250	.7	End of taxiway at Rwy 09

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Charleston AFB/Intl	111.0	G	

TENNESSEE

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Hinch Mountain (Crossville Memorial–Whitson Fld)	117.6/HCH	A/2900	336	11	Over metal hangar.
	117.6/HCH	G	335	11.5	Runup area between taxiway and rwy at center of fld.
Holston Mountain (Tri–Cities Rgnl TN/VA)	114.6/HMV	G	286	13.7	On ramp S of terminal building.
Jackson (McKellar–Sipes Rgnl)	112.0/MKL		256	0.6	At south end of ramp at fire station.
Nashville (Lebanon Muni)	114.1/BNA	A/2000	082	18	Over midfield.
Tullahoma Rgnl/Wm Northern Fld		A/1800	003	5.0	Over Normandy Dam.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Knoxville (McGhee–Tyson)	112.0	G	
Memphis Intl	111.0	G	
Nashville Intl	108.6	G	
Smyrna	110.2	G	

PUERTO RICO

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Borinquen (Rafael Hernandez)	113.5/BQN	G	271	2.2	On apch end of Rwy 08.

VIRGIN ISLANDS

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Saint Thomas (Cyril E. King)	108.6/STT	G	118	3.5	On taxiway North of Main ramp. VOR gnd checkpoint unusable.

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The following tabulation lists all reported parachute jumping sites in the area of coverage of this directory. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions. The busiest periods of activity are normally on weekends and holidays, but jumps can be expected at anytime during the week at the locations listed. Jumps within restricted airspace are not listed.

All times are local and altitudes MSL unless otherwise specified.

Contact facility and frequency is listed at the end of the remarks, when available, in bold face type.

Refer to Federal Aviation Regulations, Part 105 for required procedures relating to parachute jumping.

Organizations desiring listing of their jumping activities in this publication should contact the nearest FSS, tower or ARTCC.

Qualified parachute jumping sites will be depicted on the appropriate visual chart(s).

Note: (c) in this publication indicates that the parachute jump area is charted.

To qualify for charting, a jump area must meet the following criteria:

(1) Be in operation for at least 1 year.

(2) Operate year round (at least on weekends).

(3) Log 4,000 or more jumps each year.

In addition, jump sites can be nominated by FAA Regions if special circumstances require charting.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
	ALABAMA		
Allen Army Heliport	11 NM; 253° Wiregrass	12,500	1 NM radius. SR–SS weekends and holidays.
(c) **Bayou La Batre, Roy E.Ray Arpt**	12 NM; 217° Brookley	12,500	Daily SR–SS
Bessemer, Old Bessemer Arpt	16 NM; 057° Brookwood	10,000	1030–SS weekends
(c) **Cullman, Folsom Fld Arpt**	36 NM; 001° Vulcan	14,500	3 NM radius. SR–SS Sat–Sun, other times by NOTAM.
(c) **Dothan, Hatch Army Heliport**	10.3 NM; 290° Wiregrass	12,500 AGL	1 NM SR–SS weekends and holidays.
(c) **Elberta, Horak Arpt**	11 NM; 268° Saufley	14,000	Daily 0700–1/2 hour after SS.
Ellis Drop Zone	15 NM; 220° Decatur	1,500	0.4 NM radius. Occasional use
Eutaw Muni Arpt	30 NM; 200° Crimson	13,000 AGL	Weekends and holidays
Gadsden, Northeast Alabama Rgnl Arpt	3 NM; 230° Gadsden	14,000	Weekends and holidays 0900–SS.
Harvest, Epps Arpk	9 NM; 297° Rocket	13,500	Daily SR–SS
(c) Hazel Green	7 NM; 355° Rocket	14,000	7 NM radius. Daily SR–SS. Occasional night use.
Headland Muni Arpt	8 NM; 070° Wiregrass	15,000	Weekdays 1200–SS; Sat–Sun, and holidays SR–SS
Jones Drop Zone	6 NM; 276° Rocket	1,500	0.25 NM radius. Occasional use
Kilby Drop Zone	13 NM; 014° Montgomery	1,500	0.2 NM radius. Occasional use
Moundville Arpt	18 NM; 198° Tuscaloosa	12,000 AGL	5 NM radius. 0900–SS on weekends, occasionally weekdays by Notam.
Pinson, Industrial Park	12 NM; 085° Vulcan	10,500	0800–SS Sat–Sun, occasionally weekday and ngt use.
Prattville–Grouby Fld Arpt	17 NM; 300° Montgomery	2,000	10NM radius. For specific times call 334–953–7325.
Redstone Drop Zone	9 NM; 220° Rocket	1,500	0.2 NM radius. Occasional use
Renda Drop Zone	8 NM; 234° Talledega	1,500	0.25 NM radius. Occasional use
Tac Runkle Drop Zone	19 NM; 280° Cairns	3,500 AGL	Occasional use
Tommy Drop Zone	17 NM; 235° Montgomery	1,500	0.2 NM radius. Occasional use
(c) **Tuskegee, Moton Fld Muni**	2 NM; 198° Tuskegee	12,500	3 NM radius. Occasionally on weekends.
Vincent	37 NM; 130° Vulcan	10,000	5 NM radius. Weekends 0900–SS.
Warrior	11 NM; 350° Vulcan	12,500	Daily SR–SS
Weaver, McMinn Arpt	15 NM; 047° Talladega	12,500	1 NM radius. Daily SR–SS, occasional night use.
(c) Wetumpka Muni	18 NM; 356° Montgomery	10,000	Daily SR–SS
	FLORIDA		
Arcadia Muni	23 NM; 311° Labelle	15,000	5 NM radius. SR–SS daily, occasional ngt use.
Avon Park Executive Arpt	30 NM; 138° Lakeland	4,000	4 NM radius. Daily SR–SS
Brandon, Sod Farm	16 NM; 255° Lakeland	15,000	0830–1830 weekends
Chassahowitzka Drop Zone	38 NM; 010° St. Petersburg	4,000	0.25 NM radius. Occasional use

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
(c) **Clewiston, Airglades Arpt**	19 NM; 097° LaBelle	13,500	1 NM radius. Daily SR–SS
(c) **Coleman, Freeflight Arpt**	24 NM; 155° Ocala	15,000	3 NM radius. Daily SR–SS.
(c) **Deland Muni–Sidney H Taylor Fld**	17 NM; 210° Ormond Beach	15,000	1 NM radius. SR–SS Sat, Sun, occasionally weekdays.
Englewood, Buchan Arpt	27 NM; 158° Sarasota	15,000 AGL	2 NM radius. Sunday 1000–SS
Florabama Drop Zone	16 NM; 216° Saufley	14,000	2 NM radius. Fri–Sun 0830–SS.
(c) **Homestead General Aviation**	22 NM; 218° Dolphin	15,000	5 NM radius. 24 hrs daily.
Jacksonville, Herlong Arpt	15 NM; 255° Craig	15,000	1 NM radius. Daily SR–SS with prior notification to JAX APP CON.
Key West	1 NM; 095° Key West	7,000	0.2 NM radius. Occasional use.
(c) **La Belle, Sundance Farms Arpt**	5.4 NM; 245° La Belle	12,500	1 NM radius. Daily SR–SS.
(c) **Lake Wales Muni**	21 NM; 104° Lakeland	18,000	7 NM radius, 24 hrs daily. **Miami Center 127.2**
(c) **MacDill AFB**	11 NM; 110° St. Petersburg	10,000	0600–1100 Sun. Over Rwy 31
(c) **Myakka City**	18 NM; 097° Sarasota	12,500	5 NM radius, 24 hrs daily
(c) **New Smyrna Beach, Massey Ranch Airpark**	22 NM; 150° Ormond Beach	15,000	1 NM radius SR–SS weekends, occasionally weekdays.
(c) **Palatka Muni–Lt. Kay Larkin Fld**	36 NM; 079° Gainesville	12,500	3 NM radius. Daily, SR–SS
(c) **Pahokee, Palm Beach Co Glades Arpt**	at Pahokee	17,500	3 NM radius, 0800–1800 daily.
(c) **Quincy Muni Arpt**	10 NM; 288° Seminole	15,000	Daily SR–SS
St. Augustine	35 NM; 159° Craig	12,500	Sat–Sun occasionally weekdays
(c) **Sebastian Muni**	8 NM; 001° Vero Beach	14,000	2 NM radius. Daily SR–SS.
(c) **Shell Creek Airpark**	27.5 NM; 347° Lee County	13,000	1 NM radius. SR–SS weekends, holidays.
(c) **Skydive Live Arpt**	24 NM; 075° Crestview	13,000	3 NM radius. SR–SS Sat–Sun, holidays and other times by NOTAM.
(c) **Sugar Loaf Shores Arpt**	13 NM; 071° Key West	14,000	2 NM radius. SR–SS.
Sun City	22 NM; 123° St. Petersburg	12,500	
(c) **Titusville, Arthur Dunn Air Park**	33 NM; 341° Melbourne	13,500	1 NM radius, SR–SS daily.
(c) Umatilla Muni Arpt	29 NM; 327° Orlando	13,000 AGL	2 NM radius. SR–SS. Occasional night use.
Wakulla Co Arpt	35 NM; 180° Seminole	13,500	3 NM radius. SR–SS weekends occasionally weekdays. **Tallahassee Rgnl Tower 135.8**
(C) **Williston Muni Arpt**	22 NM; 210° Gators	11,000	2.5 NM radius. SR–SS Fri, Sat and Sun. **Jacksonville Center 118.6**
(c) **Zephyrhills Muni**	16 NM; 330° Lakeland	20,000	E of Rwy 18–36. Daily SR–2300
	GEORGIA		
Bunker Hill Drop Zone	10 NM; 233° Harris	8,000	1 NM radius. SR–1 hr after SS daily, irregular intervals. Mass military jumps from multiple acft.
(c) **Cedartown, Polk Co Arpt–Cornelius Moore Fld**	9 NM; 188° Rome	15,000	3 NM radius. SR–SS daily, occasionally nights.
Claxton–Evans Co Arpt	33.6 NM; 276° Savannah	7,500	0900–SS Sat and Sun
(c) **Dahlonega, Lumpkin County Arpt, Wimpy Drop Zone**	23 NM; 193° Harris	15,000	1 NM radius. SR to 1 hr after SS daily irregular intervals. Mass military jumps from multiple acft.
Dahlonega Highway 76 Drop Zone	11 NM; 231° Harris	3,000	Occasional use.
Fort Benning, Box Spring Drop Zone	24.5 NM; 116° Columbus	3,000	Occasional use.
Fort Benning, Eelbeck Drop Zone	17.5 NM; 131° Columbus	3,000	Occasional use.
(c) **Fort Benning, EuBanks Drop Zone**	16 NM; 171° Columbus	12,500	Daily 0500–1900
(c) **Fort Benning, Fryar Field Drop Zone**	22.5 NM; 168°Columbus	13,000	0.5 NM radius, Continuous.
(c) **Fort Benning, Gardner Drop Zone**	17 NM; 171° Columbus	12,500	Daily 0500–1900
Fort Benning, Lawson AAF (Fort Benning)	1.8 NM; 046° Lawson	12,500	1 NM radius. Daily SR–SS
Fort Benning, Lae Drop Zone	21 NM; 166° Columbus	3,000	Occasional use
Fort Benning, Ledo Drop Zone	14 NM; 090° Lawson	3,000	Occasional use
Fort Benning, McKenna Drop Zone	10 NM; 080° Columbus	3,000	Occasional use
(c) **Fort Benning, York Drop Zone**	16 NM; 172° Columbus	12,500	Daily 0500–1900
Fort Valley, Miami Valley Farms Arpt	12 NM; 220° Macon	14,000	1 NM radius, Daily 0900–SS
Locust Grove, Mallards Landing Arpt	17.5 NM; 118° Atlanta	13,500	Sat, Sun and holidays SR–SS. Occasional ngt jumps
(c) **Monroe–Walton Co Arpt**	22 NM; 242° Athens	13,500	5 NM radius. Daily 0800–2100.
Plantation Airpark, Moore Drop Zone	36 NM; 332° Savannah	1,500 AGL	1 NM radius. Occasional use. Mass Military jumps from multiple acft.
(c) **Rome, Richard B. Russell Arpt**	11.3 NM; 349° Rome	15,000	5 NM radius. SR–SS Weekends.
St Marys Arpt	19 NM; 203° Brunswick	12,000	2 NM radius. Daily 0700–1859.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
Thomaston–Upson Co	35 NM; 296° Macon	14,500	1 NM radius. Sat–Sun occasionally weekdays.
Tifton, Henry Tift Myers, Arpt	1 NM; 090° Tift Myers	15,000	5 NM radius. Daily 0700–1800.
Waycross–Ware Co Arpt	8 NM; 100° Waycross	12,500	1 NM radius. Daily 1000–1600
Wilscott Drop Zone	14 NM; 245° Harris	8,000	1 NM radius. SR to 1 hr after SS daily, irregular intervals. Mass military jumps from multiple acft.
	KENTUCKY		
Elizabethtown, Addington Fld	12 NM; 285° New Hope	11,000	3 NM radius, SR–SS Weekends and noon–SS weekdays.
Elkton, Standard Fld	16 NM; 045° Clarksville	12,000	5 NM radius. Continuous.
(c) **Flemingsburg, Fleming Mason Arpt**	27 NM; 103° Falmouth	12,500	1 NM radius. SR–SS Sat–Sun and holidays.
Ft. Campbell, Bastogne Drop Zone	8 NM; 274° Clarksville	3,000	0600–2330 Mon–Fri and occasional weekends. Military use.
Ft. Campbell, Corregidor Drop Zone	11 NM; 270° Clarksville	3,000	0600–2330 Mon–Fri and occasional weekends. Military use.
Ft. Campbell, Los Banos Drop Zone	10 NM; 270° Clarksville	3,000	0600–2330 Mon–Fri and occasional weekends. Military use.
Ft. Campbell, Suckchon Drop Zone	10 NM; 270° Clarksville	3,000	0600–2330 Mon–Fri and occasional weekends. Military use.
Glasgow Muni Arpt	24 NM; 073° Bowling Green	8,000	5 mi radius. SR–SS weekends and holidays
(c) **Greenville, Muhlenberg Co Arpt**	10 NM; 149° Central City	13,500	5 mi. radius. Daily SR–SS.
	7 NM; 149° Central City	2,000	2 NM radius. Intermittent. Military use.
(c) **Hopkinsville–Christian Co**	14 NM; 352° Clarksville	14,500	3 NM radius, 0900–1600 Tue–Fri; occasional weekends.
Owensboro, Windy Hollow Drag Strip	6 NM; 205° Owensboro	8,000	2 NM radius. 0800–SS Sun, holidays occasionally other times
	NORTH CAROLINA		
Erwin Arpt	22 NM; 030° Fayetteville	4,500	1 NM radius. Sat & Sun afternoons
(c) **Fayetteville, Southern Comforts Arpt**	9 NM; 220 Fayetteville	14,000	3 NM radius. Fri–Mon and holidays SR–SS.
Greensboro, Southeast Greensboro Arpt	18 NM; 115° Greensboro	12,000	1 NM radius. 0800–2000 Sat and Sun.
	8 NM; 339° Liberty	11,000	3 NM radius. 0800–1600 Fri–Sun.
Greenville	22 NM; 040° Kinston	15,500	Daily SR–SS.
(c) Jonesville, Swan Creek Arpt	27 NM; Barretts Mountain	15,000	3 NM radius. SR–SS daily, occasional night.
(c) **Louisburg, North Raleigh**	22 NM; 060° Raleigh–Durham	15,500	30 min before SR–30 min after SS daily. Occasional ngt.
(c) **Luzon Drop Zone**	13 NM; 152° Sandhills	17,500	0600–1900 Daily.
Mackall AAF	11 NM; 150° Sandhills	17,500	Continuous.
(c) **Maxton, Laurinburg–Maxton Arpt**	26 NM; 250° Fayetteville	13,500	0800–1700 Mon–Fri.
Mebane, Kimrey Arpt	29 NM; 296° Raleigh/Durham	12,000	1 NM radius. 0900–SS Weekends; occasionally other times.
Pinebluff	8.75 NM; 143° Sandhills	12,500	Sat, Sun and holidays. Weekdays on request.
(c) **PK Airpark**	17 NM; 280° Fayetteville	12,500 AGL	Continuous.
(c) **Rocky Mount**	9.5 NM; 285° Tar River	12,500	Sat, Sun and holidays 0900–SS.
Southport, Brunswick Co.	27.2 NM; 209° Wilmington	12,000	3 NM radius. 0800–2100 daily.
Thomasville, Fairgrove Arpt	13 NM; 201° Greensboro	14,000	Weekends and holidays.
(c) **Wallace, Henderson Fld**	23 NM; 351° Wilmington	15,000 AGL	3 NM radius. Sat–Sun SR–SS.
Washington, Warrenn Fld	27.6 NM; 069° Kinston	14,999 AGL	2 NM radius. SR–SS daily, occasional night use.
	SOUTH CAROLINA		
Beaufort County Arpt	38.25 NM; 067° Savannah	10,000	1.0 NM radius. Sat, Sun and holidays SR–SS.
(c) **Chester Catawa Rgnl Arpt**	16.5 NM; 223° Fort Mill	13,500 AGL	1 NM radius. Daily 0800–SS.
Clemson– Oconee Co. Arpt	14 NM; 343° Electric City	12,000	Daily SR–SS.
Columbia, Fort Jackson	10 NM; 020° Columbia	10,000	1 NM radius. Weekends, occasional weekdays.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
(c) **Green Sea Arpt**	25 NM; 330° Grand Strand	15,000	3 NM radius. Weekends and occasional weekdays SR–SS.
(c) **Loris, Twin City Arpt**	15 NM; 340° Grand Strand	12,000	Weekends, holidays 0800–SS.
(c) **North AF Aux Arpt**	15 NM; 186° Columbia	2,000	½ NM radius. Mon–Fri 0800–2200. Military personnel and heavy equipment.
St George Arpt	17 NM; 192° Vance	17,900	SR–1 hr after SS.
Timmonsville, Huggins Arpt	14 NM; 247° Florence	12,500	Daily SR–SS.
(c) Walterboro, Lowcountry Rgnl Arpt	30.5 NM; 275° Charleston	12,500 AGL	Weekends.
TENNESSEE			
Campbell Co.	28.9 NM; 336° Volunteer	13,500	2 NM radius. 0800–one hr byd SS.
Chattanooga	13 NM; 087° Choo Choo	10,000	Continuous.
Clarksville, Outlaw Fld	Over Clarksville	14,000 AGL	4 NM radius. Daily SR–SS, occasional ngts.
Crossville Meml–Whitson Fld.	11.5 NM; 335° Hitch Mountain	14,500	1 NM radius. Daily SR–1 hr after SS, occasional nights.
(c) **Dunlap**	30 NM; 335° Choo Choo	9,000	5 NM radius. SR–SS Daily.
Fort Campbell, Son Drop Zone	4.1 NM; 302° Clarksville	12,500	Daily.
Livingston Arpt	13 NM; 212° Livingston	12,500	Weekends.
(c) **Paris, Henry Co.**	44.3 NM; 357° Jacks Creek	13,500	5 NM radius. Daily SR–SS.
Sevierville, Seymour Airpark	10 NM; 133° Volunteer	13,500	3 NM radius. Weekends SR–SS.
(c) Somerville, Wings	26 NM; 210° McKellar	14,000 AGL	2 NM radius. Weekends 0700–SS. Occasional ngt jumps.
Tullahoma Rgnl Arpt/WM Northern Fld	14.1 NM; 139° Shelbyville	15,000	5 NM radius. SR–SS primarily weekends with occasional nights.
Whifferdill	25 NM; 303° Nashville	11,500	2 NM radius. Weekends SR–SS.
PUERTO RICO			
(c) **Arecibo, Antonio/Nery/Juarbe Pol Arpt.**	25 NM; 105° Borinquen	12,500	0600–1800 weekends & holidays.
(c) Humacao Arpt	20.9 NM; 159° San Juan	15,000	2.5 NM radius. Weekends SR–SS, occasionally holiday SR–SS.
VIRGIN ISLANDS			
St. Croix, Ordinance Drop Zone		2,000	0700–1400 Mon–Fri. 5 NM radius from 17°49′N 064°52′W.
St. Thomas, Cyril E. King No. 1	6.5 NM; 118° St. Thomas	15,000	
St. Thomas, Cyril E. King No. 2	10.4 NM; 110° St. Thomas	15,000	

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The purpose of this bulletin is to provide major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical, VFR Terminal Area, and Helicopter Route Charts listed. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot, and major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain chart currency. The data is grouped by type and then by effective date. When a new edition of the Aeronautical Chart is published, the corrective tabulation will be removed from this bulletin. Inasmuch as this Bulletin provides major changes only, pilots should consult the airport listing in this directory for all new information. Users of U.S. World Aeronautical Charts (WAC) and U.S. Gulf Coast VFR Aeronautical Charts should consult the appropriate Sectional and VFR Terminal Area Charts for revisions.

Military Training Routes (MTRs) are shown on Sectional Aeronautical Charts, VFR Terminal Area, and Helicopter Route Charts. Only the route centerline, direction of flight and the route designator are shown — route widths and altitudes are not shown. Since these routes are subject to change every 56 days and the charts are reissued generally every 6 months, routes with a change in the alignment of the charted route centerline will be listed in this Aeronautical Chart Bulletin below. You are advised to contact the nearest FSS for route dimensions and current status for those routes affecting your flight.

ATLANTA SECTIONAL
84th Edition, 11 Mar 2010

OBSTRUCTIONS
8 Apr 2010 Add obst 832′MSL (290′AGL)UC, 32°58′30″N, 86°37′02″W.
Add obst 926′MSL (409′AGL)UC, 33°53′37″N, 86°43′02″W.
Add obst 1007′MSL (492′AGL)UC, 32°58′56″N, 86°51′02″W.
Add obst 1048′MSL (423′AGL)UC, 34°45′28″N, 87°30′06″W.
3 Jun 2010 Add obst 793′MSL (310′AGL)UC, 33°22′26″N, 87°41′29″W.
Add obst 856′MSL (260′AGL)UC, 32°42′56″N, 86°39′16″W.
Add obst 1378′MSL (210′AGL)UC, 36°07′48″N, 83°28′33″W.
Add obst 834′MSL (310′AGL)UC, 33°49′43″N, 87°22′17″W.
Add obst 985′MSL (260′AGL)UC, 32°51′52″N, 86°05′30″W.
Add obst 1261′MSL (300′AGL)UC, 35°50′20″N, 87°00′44″W.

AIRPORTS
8 Apr 2010 Change RP 8 to RP 28 at COVINGTON arpt, 33°37′56″N, 83°50′50″W.
3 Jun 2010 Change RP 8 to RP 28 at COVINGTON MUNI arpt, 33°37′50″N, 83°50′40″W.
Add RP 23 to BARNWELL RGNL 33°15′30″N, 81°23′20″W.

NAVAIDS
8 Apr 2010 – 3 Jun 2010 No Major Changes.

AIRSPACE
8 Apr 2010 Change BIRMINGHAM Class C freq from 385.6 to 256.8
3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
8 Apr 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
8 Apr 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
8 Apr 2010 – 3 Jun 2010 No Major Changes.

ATLANTA TERMINAL AREA CHART
81st Edition, 11 Mar 2010

OBSTRUCTIONS
8 Apr 2010 – 3 Jun 2010 No Major Changes.

AIRPORTS
8 Apr 2010 – 3 Jun 2010 No Major Changes.

NAVAIDS
8 Apr 2010 – 3 Jun 2010 No Major Changes.

AIRSPACE
8 Apr 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
8 Apr 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
8 Apr 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
8 Apr 2010 – 3 Jun 2010 No Major Changes.

CG–21 WORLD AERONAUTICAL CHART
40th Edition, 24 Sep 2009

OBSTRUCTIONS
22 Oct 2009 Add obst 1348′MSL (600′AGL), 34°15′06″N, 84°59′12″W.
Change obst from 312′MSL to 1312′MSL, 33°35′33″N, 083°58′31″W.
17 Dec 2009 – 3 Jun 2010 No Major Changes.

AIRPORTS
22 Oct 2009 Change elevation from 191′ to 1911′ at Blairsville arpt, 34°51′16″N, 083°59′50″W.
Change runway orientation to 01/19 at Halifax-Northhampton Co Rgnl arpt, 36°19′47″N, 077°38′07″W.
17 Dec 2009 – 3 Jun 2010 No Major Changes.

NAVAIDS
22 Oct 2009 – 3 Jun 2010 No Major Changes.

AIRSPACE
22 Oct 2009 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
22 Oct 2009 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
22 Oct 2009 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
22 Oct 2009 – 3 Jun 2010 No Major Changes.

CHARLOTTE SECTIONAL
87th Edition, 14 Jan 2010

OBSTRUCTIONS
11 Feb 2010 No Major Changes.
8 Apr 2010 Add obst 371′MSL (310′AGL)UC, 36°15′27″N, 77°30′00″W.
Add obst 339′MSL (310′AGL)UC, 34°26′57″N, 78°13′23″W.
Add obst 381′MSL (300′AGL)UC, 34°04′47″N, 78°48′40″W.
Add obst 1247′MSL (1168′AGL), 35°33′11″N, 77°36′05″W.
3 Jun 2010 No Major Changes.

AIRPORTS
11 Feb 2010 – 8 Apr 2010 No Major Changes.
3 Jun 2010 Delete CAG Farms arpt, 35°28′10″N, 78°39′16″W.
Add RP 23 to BARNWELL arpt, 33°15′29″N, 81°23′17″W.
Change AWOS-3 freq 124.795 to 124.775 at WILLIAMSBURG RGNL arpt, 33°43′07″N, 79°51′24″W.

NAVAIDS
11 Feb 2010 – 8 Apr 2010 No Major Changes.
3 Jun 2010 Delete JNALL NDB, 35°36′25″N, 078°21′16″W.

AIRSPACE
11 Feb 2010 Revise Atlantic Low Offshore Airspace Area: That airspace extending upward from 5,500 feet MSL bounded on the east by the Moncton FIR and the New York Oceanic CTA/FIR, on the south by 34°00′44″N, on the west and north by a line 12 miles from and parallel to the U.S. shoreline, excluding Federal airways and the East Coast Low offshore airspace area; and that airspace extending upward from 1,700 feet MSL within the portion of the Atlantic Low offshore airspace area that lies between a line drawn 12 miles from and parallel to the U.S. shoreline and a line drawn 20 miles from and parallel to the U.S. shoreline.
Revise South Florida Low Offshore Airspace Area: That airspace extending upward from 2,700 feet MSL bounded on the west by the Houston Oceanic CTA/FIR; bounded on the north from west to east by the Jacksonville Air Route Traffic Control Center boundary, a line 12 miles from and parallel to the U.S. shoreline and lat. 34°00′00″N., bounded on the east by the New York Oceanic CTA/FIR and the San Juan Oceanic CTA/FIR; bounded on the south from east to west by the Santo Domingo FIR, the Port-Au-Prince CTA/FIR and the Havana CTA/FIR; excluding the Grand Bahama TCA and the Nassau TCA; and that airspace extending upward from 1,300 feet MSL within the portion of the South Florida Low that lies between a line drawn 12 miles from and parallel to the U.S. shoreline and a line drawn 20 miles from and parallel to the U.S. shoreline, along the full length of the South Florida Low and extending around the Marquesas Keys, but excluding the Dry Tortugas Islands.
Revise Albemarle, NC Class D: That airspace extending upward from the surface to and including 3,100 feet MSL within a 5.8-mile radius of Stanly County Airport and within 1.5 miles each side of the 037 ° bearing from Stanly County Airport to 7.8 miles Northeast. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective date and time will thereafter be continuously published in the Airport/Facility Directory.
8 Apr 2010 No Major Changes.
3 Jun 2010 Change RALEIGH CLASS C freq from 380.05 to 353.675, 35°52′40″N, 78°47′15″W.

SPECIAL USE AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
11 Feb 2010 No Major Changes.
8 Apr 2010 Change MEF 0^{9} to 0^{4} in quadrant 35°30′–36°00′N, 77°30′–78°00′W.
3 Jun 2010 Change MEF 0^{4} to 1^{4} in quadrant 35°30′–36°00′N, 77°30′–78°00′W.

CHARLOTTE TERMINAL AREA CHART
42nd Edition, 14 Jan 2010

OBSTRUCTIONS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

AIRPORTS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

NAVAIDS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

AIRSPACE
11 Feb 2010 Revise Albemarle, NC Class D: That airspace extending upward from the surface to and including 3,100 feet MSL within a 5.8-mile radius of Stanly County Airport and within 1.5 miles each side of the 037 ° bearing from Stanly County Airport to 7.8 miles Northeast. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective date and time will thereafter be continuously published in the Airport/Facility Directory.
8 Apr 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

CINCINNATI SECTIONAL
83rd Edition, 17 Dec 2009

OBSTRUCTIONS
17 Dec 2009 No Major Changes.
11 Feb 2010 Add obst 1129′MSL (300′AGL)UC, 38°29′49″N, 82°51′18″W.
Add obst 1276′MSL (300′AGL)UC, 38°24′01″N, 83°09′38″W.
Add obst 1097′MSL (275′AGL)UC, 39°03′46″N, 84°59′04″W.
Add obst 1522′MSL (258′AGL)UC, 39°39′44″N, 80°04′00″W.
Add obst 1580′MSL (289′AGL)UC, 39°43′33″N, 80°12′37″W.
Add obst 2642′MSL (304′AGL)UC, 38°24′24″N, 80°47′10″W.
Add windmill farm. 4411′MSL UC, 38°05′27″N, 80°25′48″W.
8 Apr 2010 Add obst 1566′MSL (204′AGL)UC, 37°39′55″N, 83°57′21″W.
Add obst 1142′MSL (295′AGL)UC, 38°45′58″N, 84°53′45″W.
Add obst 1385′MSL (279′AGL)UC, 36°10′15″N, 84°02′17″W.
Add obst 1578′MSL (235′AGL)UC, 36°52′32″N, 84°12′59″W.
Add obst 1409′MSL (255′AGL)UC, 36°46′20″N, 84°45′59″W.
Add obst 1170′MSL (280′AGL)UC, 38°15′12″N, 84°37′40″W.
Add obst 1199′MSL (299′AGL)UC, 38°16′32″N, 84°57′02″W.
Add obst 1734′MSL (314′AGL)UC, 37°09′53″N, 83°23′10″W.
Add obst 1477′MSL (255′AGL)UC, 36°55′42″N, 84°14′33″W.
Add obst 786′MSL (310′AGL)UC, 36°14′41″N, 78°19′50″W.
Add obst 2210′MSL (260′AGL)UC, 36°23′13″N, 84°20′11″W.
Add obst 4716′MSL (389′AGL)UC, 38°04′46″N, 80°32′37″W.
Add obst 1695′MSL (315′AGL)UC, 37°10′09″N, 83°31′54″W.
Add obst 1792′MSL (306′AGL)UC, 37°36′25″N, 83°59′58″W.
Add obst 1138′MSL (300′AGL)UC, 38°20′21″N, 82°47′08″W.
Add obst 1280′MSL (258′AGL)UC, 38°51′21″N, 82°55′52″W.
Add obst 1008′MSL (216′AGL)UC, 39°20′01″N, 84°46′34″W.
Add obst 2610′MSL (415′AGL)UC, 38°49′04″N, 79°51′29″W.
Add obst 1612′MSL (311′AGL)UC, 38°09′58″N, 81°12′13″W.
Add obst 2509′MSL (315′AGL)UC, 39°02′16″N, 79°56′33″W.
Add obst 2434′MSL (315′AGL)UC, 39°00′23″N, 79°48′52″W.
Add obst 2422′MSL (289′AGL)UC, 39°18′45″N, 79°41′09″W.
Add obst 4726′MSL (389′AGL)UC, 38°03′56″N, 80°29′48″W.
Add obst 1917′MSL (290′AGL)UC, 39°24′46″N, 80°03′09″W.
Add obst 2314′MSL (260′AGL)UC, 37°46′35″N, 81°22′05″W.
Add obst 1872′MSL (408′AGL)UC, 37°41′43″N, 81°38′23″W.
Add obst 1433′MSL (340′AGL)UC, 38°18′44″N, 82°13′42″W.
Add obst 1798′MSL (360′AGL)UC, 39°29′40″N, 80°23′16″W.
Add obst 3352′MSL (315′AGL)UC, 38°21′38″N, 80°38′51″W.
Add obst 1772′MSL (315′AGL)UC, 39°35′16″N, 80°15′02″W.
Add obst 1318′MSL (300′AGL)UC, 38°13′32″N, 82°27′05″W.
Add obst 4248′MSL (320′AGL)UC, 37°46′25″N, 80°42′19″W.
Add obst 1498′MSL (289′AGL)UC, 39°42′45″N, 80°10′06″W.
Add obst 2189′MSL (289′AGL)UC, 39°19′20″N, 79°49′37″W.
Add obst 2905′MSL (360′AGL)UC, 38°09′10″N, 81°06′53″W.
Change windmill farm highest MSL from 4411′MSL to 4726′MSL (389′AGL)UC, 38°03′46″N, 80°30′08″W.
3 Jun 2010 Add obst 1147′MSL (281′AGL)UC, 38°06′40″N, 81°50′47″W.
Add obst 2329′MSL (256′AGL)UC, 38°06′29″N, 81°22′20″W.
Add obst 2904′MSL (311′AGL)UC, 38°03′37″N, 80°56′59″W.
Add obst 3159′MSL (230′AGL)UC, 37°41′44″N, 81°02′45″W.
Add obst 934′MSL (435′AGL)UC, 39°26′04″N, 77°58′33″W.
Add obst 1378′MSL (210′AGL)UC, 36°07′48″N, 83°28′33″W.
Add obst 2288′MSL (298′AGL)UC, 37°33′32″N, 80°47′10″W.
Add obst 840′MSL (210′AGL)UC, 38°47′06″N, 82°03′14″W.
Add obst 1432′MSL (310′AGL)UC, 38°32′59″N, 81°18′43″W.
Add obst 1117′MSL (308′AGL)UC, 38°22′48″N, 82°22′19″W.
Add obst 2427′MSL (480′AGL)UC, 39°06′54″N, 79°59′35″W.
Add obst 1288′MSL (315′AGL)UC, 39°31′10″N, 78°47′41″W.
Add obst 1238′MSL (260′AGL)UC, 38°18′26″N, 81°39′19″W.
Add obst 3342′MSL (250′AGL)UC, 39°22′57″N, 79°04′43″W.
Add obst 1357′MSL (250′AGL)UC, 39°56′02″N, 78°01′01″W.
Add obst 1266′MSL (308′AGL)UC, 38°15′55″N, 81°46′33″W.
Add obst 2652′MSL (245′AGL)UC, 37°35′37″N, 80°55′22″W.
Add windmill farm. 3226′ is highest MSL 40°01′35″N, 78°48′07″W.

AIRPORTS
17 Dec 2009 No Major Changes.
11 Feb 2010 Delete KNORE arpt, 38°50′15″N, 82°50′05″W.
Delete ACTION arpt, 39°07′57″N, 84°49′43″W.
8 Apr 2010 No Major Changes.
3 Jun 2010 Change CTAF 122.8 to 122.9 at CYNTHIANA-HARRISON arpt, 38°21′58″N, 84°17′00″W.

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NAVAIDS
17 Dec 2009 – 3 Jun 2010 No Major Changes.

AIRSPACE
17 Dec 2009 No Major Changes.
11 Feb 2010 Add MOUNTAIN CITY, TN Class E. That airspace extending upward from 700 feet above the surface within a 6.7–mile radius of the Johnson County Airport and within 1.3 miles each side of the 065° bearing from the airport extending from the 6.7–mile radius to 10.9 miles northeast of the airport.
8 Apr 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
17 Dec 2009 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
17 Dec 2009 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
17 Dec 2009 – 11 Feb 2010 No Major Changes.
8 Apr 2010 Change MEF 4^{7} to 4^{9} in quadrant 38°00′-38°30′N, 80°30′-81°00′W.
3 Jun 2010 No Major Changes.

CINCINNATI TERMINAL AREA CHART
22nd Edition, 17 Dec 2009

OBSTRUCTIONS
11 Feb 2010 Add obst 1097′MSL (275′AGL)UC, 39°03′46″N, 84°59′04″W.
8 Apr 2010 Add obst 1142′MSL (295′AGL)UC, 38°45′58″N, 84°53′45″W.
Add obst 1008′MSL (216′AGL)UC, 39°20′01″N, 84°46′34″W.
3 Jun 2010 No Major Changes.

AIRPORTS
11 Feb 2010 Delete ACTION arpt, 39°07′57″N, 84°49′43″W.
8 Apr 2010 – 3 Jun 2010 No Major Changes.

NAVAIDS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

IFR GULF OF MEXICO CENTRAL
1st Edition, 17 Dec 2009

OBSTRUCTIONS
17 Dec 2009 – 3 Jun 2010 No Major Changes.

AIRPORTS
17 Dec 2009 – 3 Jun 2010 No Major Changes.

NAVAIDS
17 Dec 2009 – 3 Jun 2010 No Major Changes.

AIRSPACE
17 Dec 2009 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
17 Dec 2009 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
17 Dec 2009 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
17 Dec 2009 No Major Changes.
11 Feb 2010 Delete BUEKR Waypoint N 29°45′ W 91°50′.
8 Apr 2010 – 3 Jun 2010 No Major Changes.

IFR GULF OF MEXICO WEST
1st Edition, 17 Dec 2009

OBSTRUCTIONS
17 Dec 2009 – 3 Jun 2010 No Major Changes.

AIRPORTS
17 Dec 2009 – 3 Jun 2010 No Major Changes.

NAVAIDS
17 Dec 2009 – 11 Feb 2010 No Major Changes.
8 Apr 2010 Delete BRENHAM (BNH) NDB 30°13′20.6″N, 96°22′24.6″W.
3 Jun 2010 No Major Changes.

AIRSPACE
17 Dec 2009 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
17 Dec 2009 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
17 Dec 2009 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
17 Dec 2009 – 11 Feb 2010 No Major Changes.
8 Apr 2010 Change Name SAITA to SARITA at HOUSTON RCAG 27°13′16″N, 97°47′56″W.
3 Jun 2010 No Major Changes.

JACKSONVILLE SECTIONAL
85th Edition, 11 Feb 2010

OBSTRUCTIONS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

AIRPORTS
11 Feb 2010 No Major Changes.
8 Apr 2010 Add FLAGLER CO ATCT 118.95, 29°28′03″N, 81°12′23″W.
3 Jun 2010 LIBERTY CO arpt abandoned, 31°47′05″N, 81°38′28″W.

NAVAIDS
11 Feb 2010 – 8 Apr 2010 No Major Changes.
3 Jun 2010 Shutdown KISSIMMEE NDB, 28°17′22″N, 81°26′03″W.
Delete GEIGER LAKE NDB, 28°35′35″N, 80°48′59″W.

AIRSPACE
11 Feb 2010 – 8 Apr 2010 No Major Changes.
3 Jun 2010 Add QUITMAN, GA. Class E: That airspace extending upward from 700 feet above the surface within a 6.6–mile radius of the Quitman Brooks County Airport.

SPECIAL USE AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MEMPHIS SECTIONAL
84th Edition, 8 Apr 2010

OBSTRUCTIONS
8 Apr 2010 No Major Changes.
3 Jun 2010 Add obst 777′MSL (311′AGL)UC, 33°17′12″N, 89°24′53″W.
Add obst 784′MSL (351′AGL)UC, 32°36′58″N, 89°15′23″W.
Change obst from 763′MSL (383′AGL) to 875′MSL (495′AGL), 33°07′23″N, 93°59′52″W.
Add obst 478′MSL (260′AGL)UC, 35°13′47″N, 90°20′16″W.
Add obst 654′MSL (350′AGL)UC, 32°47′36″N, 89°51′03″W.
Add obst 601′MSL (301′AGL), 35°06′55″N, 89°56′36″W.
Add obst 439′MSL (335′AGL)UC, 32°55′35″N, 91°40′19″W.
Add obst 478′MSL (260′AGL), 35°13′47″N, 90°20′16″W.

AIRPORTS
8 Apr 2010 – 3 Jun 2010 No Major Changes.

NAVAIDS
8 Apr 2010 No Major Changes.
3 Jun 2010 Delete KOSCUISKO NDB, 33°05′27″N, 89°32′25″W.
Delete CLARKSDALE NDB, 34°17′35″N, 90°30′56″W.
Delete ASH FLAT NDB, 36°10′50″N, 91°36′23″W.

AIRSPACE
8 Apr 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
8 Apr 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
8 Apr 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
8 Apr 2010 – 3 Jun 2010 No Major Changes.

MEMPHIS TERMINAL AREA CHART
42nd Edition, 8 Apr 2010

OBSTRUCTIONS
8 Apr 2010 No Major Changes.
3 Jun 2010 Add obst 478′MSL (260′AGL), 35°13′47″N, 90°20′16″W.
Add obst 601′MSL (301′AGL), 35°06′55″N, 89°56′36″W.

AIRPORTS
8 Apr 2010 – 3 Jun 2010 No Major Changes.

NAVAIDS
8 Apr 2010 – 3 Jun 2010 No Major Changes.

AIRSPACE
8 Apr 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
8 Apr 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
8 Apr 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
8 Apr 2010 – 3 Jun 2010 No Major Changes.

MIAMI SECTIONAL
86th Edition, 11 Feb 2010

OBSTRUCTIONS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

AIRPORTS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

NAVAIDS
11 Feb 2010 – 8 Apr 2010 No Major Changes.
3 Jun 2010 Shutdown RUBIN NDB, 26°41′16″N, 80°12′37″W.
Detete NAPLE NDB, 26°09′20″N, 81°46′28″W.
Delete VERO BEACH NDB, 27°39′51″N, 80°25′10″W.

AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MIAMI TERMINAL AREA CHART
75th Edition, 11 Feb 2010

OBSTRUCTIONS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

AIRPORTS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

NAVAIDS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

NEW ORLEANS SECTIONAL
86th Edition, 3 Jun 2010

OBSTRUCTIONS
3 Jun 2010 No Major Changes.

AIRPORTS
3 Jun 2010 No Major Changes.

NAVAIDS
3 Jun 2010 No Major Changes.

AIRSPACE
3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
3 Jun 2010 No Major Changes.

MISCELLANEOUS
3 Jun 2010 No Major Changes.

ORLANDO TERMINAL AREA CHART
40th Edition, 11 Feb 2010

OBSTRUCTIONS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

AIRPORTS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

NAVAIDS
11 Feb 2010 – 8 Apr 2010 No Major Changes.
3 Jun 2010 Shutdown KISSIMMEE NDB, 28°17′22″N, 81°26′03″W.
Delete GEIGER LAKE NDB, 28°35′35″N, 80°48′59″W.

AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

PUERTO RICO–VIRGIN ISLAND TERMINAL AREA CHART
36th Edition, 22 Oct 2009

OBSTRUCTIONS
22 Oct 2009 – 17 Dec 2009 No Major Changes.
11 Feb 2010 Add obst 818′MSL (260′AGL)UC, 18°02′29″N, 66°50′24″W.
8 Apr 2010 – 3 Jun 2010 No Major Changes.

AIRPORTS
22 Oct 2009 – 3 Jun 2010 No Major Changes.

NAVAIDS
22 Oct 2009 – 3 Jun 2010 No Major Changes.

AIRSPACE
22 Oct 2009 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
22 Oct 2009 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
22 Oct 2009 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
22 Oct 2009 – 3 Jun 2010 No Major Changes.

ST. LOUIS SECTIONAL
81st Edition, 17 Dec 2009

OBSTRUCTIONS
17 Dec 2009 No Major Changes.
11 Feb 2010 Add obst 1097′MSL (275′AGL)UC, 39°03′46″N, 84°59′04″W.
Add obst 1410′MSL (630′AGL)UC, 40°03′14″N, 85°59′22″W.
Change obst from 827′MSL (243′AGL) to 882′MSL (300′AGL), 38°44′06″N, 89°57′02″W.
Add obst 738′MSL (226′AGL)UC, 38°11′11″N, 89°40′09″W.
Add obst 722′MSL (260′AGL)UC, 38°17′56″N, 89°59′34″W.
Add obst 692′MSL (260′AGL)UC, 37°15′35″N, 88°58′50″W.
Add obst 851′MSL (349′AGL)UC, 38°45′25″N, 89°06′09″W.
Add obst 756′MSL (275′AGL)UC, 38°32′04″N, 89°31′26″W.
Add obst 865′MSL (220′AGL), 39°17′43″N, 88°00′03″W.
Add obst 1200′MSL (237′AGL)UC, 39°12′34″N, 86°38′31″W.
Add obst 917′MSL (227′AGL)UC, 37°53′08″N, 86°03′40″W.
Add obst 1003′MSL (258′AGL)UC, 40°12′40″N, 88°44′43″W.
Add obst 851′MSL (258′AGL)UC, 39°55′55″N, 89°40′00″W.
Add obst 888′MSL (258′AGL)UC, 39°40′32″N, 89°50′15″W.
Add obst 1265′MSL (315′AGL)UC, 37°45′31″N, 90°46′15″W.
Add obst 868′MSL (258′AGL)UC, 39°58′06″N, 89°43′48″W.
Add obst 879′MSL (258′AGL)UC, 39°56′42″N, 89°55′56″W.
Add obst 838′MSL (258′AGL)UC, 39°50′25″N, 89°48′10″W.
Add obst 885′MSL (258′AGL)UC, 39°02′32″N, 89°53′08″W.
Add obst 887′MSL (258′AGL)UC, 39°04′50″N, 89°48′26″W.
8 Apr 2010 Add obst 1164′MSL (400′AGL)UC, 40°10′06″N, 89°05′56″W.
Add obst 1566′MSL (204′AGL)UC, 37°39′55″N, 83°57′21″W.
Add obst 817′MSL (300′AGL)UC, 38°37′03″N, 86°42′35″W.
Add obst 1142′MSL (295′AGL)UC, 38°45′58″N, 84°53′45″W.
Add obst 1022′MSL (256′AGL)UC, 37°30′50″N, 86°25′55″W.
Add obst 703′MSL (258′AGL)UC, 38°15′24″N, 89°03′24″W.
Add obst 900′MSL (250′AGL)UC, 40°06′39″N, 90°33′35″W.
Add obst 1385′MSL (279′AGL)UC, 36°10′15″N, 84°02′17″W.
Add obst 712′MSL (280′AGL)UC, 36°40′56″N, 88°44′19″W.
Add obst 1578′MSL (235′AGL)UC, 36°52′32″N, 84°12′59″W.
Add obst 1409′MSL (255′AGL)UC, 36°46′20″N, 84°45′59″W.
Add obst 863′MSL (280′AGL)UC, 37°48′34″N, 85°34′52″W.
Add obst 1133′MSL (299′AGL)UC, 38°20′55″N, 85°02′02″W.
Add obst 1170′MSL (280′AGL)UC, 38°15′12″N, 84°37′40″W.
Add obst 1199′MSL (299′AGL)UC, 38°16′32″N, 84°57′02″W.
Add obst 1119′MSL (265′AGL)UC, 38°26′43″N, 85°10′39″W.
Add obst 829′MSL (255′AGL)UC, 37°16′08″N, 86°40′28″W.
Add obst 902′MSL (255′AGL)UC, 36°45′38″N, 86°43′03″W.
Add obst 682′MSL (300′AGL)UC, 36°55′13″N, 87°58′37″W.
Add obst 1032′MSL (255′AGL)UC, 36°50′24″N, 85°56′34″W.
Add obst 905′MSL (310′AGL)UC, 37°51′44″N, 86°45′00″W.
Add obst 1477′MSL (255′AGL)UC, 36°55′42″N, 84°14′33″W.
Add obst 1052′MSL (255′AGL)UC, 37°05′29″N, 85°36′52″W.
Add obst 977′MSL (260′AGL)UC, 39°09′51″N, 90°48′57″W.
Add obst 834′MSL (234′AGL)UC, 38°17′02″N, 90°35′42″W.
Add obst 955′MSL (232′AGL)UC, 38°19′22″N, 90°50′28″W.
Add obst 787′MSL (400′AGL)UC, 36°15′29″N, 88°11′11″W.
Add obst 1178′MSL (286′AGL)UC, 36°30′51″N, 86°33′57″W.
Add obst 988′MSL (290′AGL)UC, 36°27′48″N, 87°37′08″W.
Add obst 2210′MSL (260′AGL)UC, 36°23′13″N, 84°20′11″W.
Add obst 1792′MSL (306′AGL)UC, 37°36′25″N, 83°59′58″W.
Add obst 1020′MSL (349′AGL)UC, 37°06′51″N, 87°56′32″W.
Add obst 887′MSL (259′AGL)UC, 39°35′02″N, 89°44′44″W.
Add obst 1008′MSL (216′AGL)UC, 39°20′01″N, 84°46′34″W.
Add obst 959′MSL (260′AGL)UC, 38°24′38″N, 90°45′42″W.
Add obst 962′MSL (215′AGL)UC, 37°41′57″N, 84°29′03″W.
3 Jun 2010 Add obst 648′MSL (260′AGL), 36°56′39″N, 90°10′08″W.
Add obst 655′MSL (258′AGL), 37°51′48″N, 89°19′11″W.

AIRPORTS
17 Dec 2009 No Major Changes.
11 Feb 2010 Delete ACTION arpt, 39°07′57″N, 84°49′43″W.
Delete RP 19, RP 14 at SMYRNA arpt, 36°00′32″N, 86°31′12″W.
8 Apr 2010 Delete RICHARDSON arpt, 38°22′50″N, 87°13′14″W.
3 Jun 2010 Change CTAF 122.8 to 123.05 at ALEXANDRIA arpt 40°13′57″N, 85°38′15″W.
Change CTAF 122.8 to 122.9 at CYNTHIANA-HARRISON CO arpt 38°21′58″N, 84°17′00″W.

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NAVAIDS
17 Dec 2009 No Major Changes.
11 Feb 2010 Delete CLAYE NDB, 39°03′23″N, 86°35′58″W.
Shutdown KENNETT NDB, 36°13′43″N, 90°02′21″W.
Shutdown LITCHFIELD NDB, 39°09′55″N, 89°40′32″W.
8 Apr 2010 – 3 Jun 2010 No Major Changes.

AIRSPACE
17 Dec 2009 – 11 Feb 2010 No Major Changes.
8 Apr 2010 Revise ST. LOUIS, MO. Class D: That airspace extending upward from the surface to and including 3,000 feet MSL within a 4.3-mile radius of Spirit of St. Louis Airport, and within 1 mile each side of the 258° bearing from the airport extending from the 4.3-mile radius to 4.6 miles west of the airport, excluding that airspace within the St. Louis, MO Class B airspace area. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective dates and times will thereafter be continuously published in the Airport/Facility Directory.
3 Jun 2010 Revise HUNTINGBURG, IN Class E: That airspace extending upward from 700 feet above the surface within a 7-mile radius of Huntingburg Airport and within 2 miles either side of the 091° bearing from the airport extending from the 7-mile radius to 11.1 miles east of the airport.

SPECIAL USE AIRSPACE
17 Dec 2009 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
17 Dec 2009 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
17 Dec 2009 – 3 Jun 2010 No Major Changes.

TAMPA TERMINAL AREA CHART
40th Edition, 11 Feb 2010

OBSTRUCTIONS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

AIRPORTS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

NAVAIDS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

U.S. GULF COAST VFR CHART
24th Edition, 22 Oct 2009

OBSTRUCTIONS
22 Oct 2009 – 3 Jun 2010 No Major Changes.

AIRPORTS
22 Oct 2009 – 3 Jun 2010 No Major Changes.

NAVAIDS
22 Oct 2009 – 3 Jun 2010 No Major Changes.

AIRSPACE
22 Oct 2009 – 17 Dec 2009 No Major Changes.
11 Feb 2010 Add LCHCB IFR Waypoint, 29°31′39″N, 93°00′00″W.
Add LCHLB IFR Waypoint, 29°32′11″N, 93°20′00″W.
Add LCHRB IFR Waypoint, 29°31′04″N, 92°40′00″W.
Add LLACB IFR Waypoint, 29°30′31″N, 92°00′00″W.
Add LLALB IFR Waypoint, 29°30′49″N, 92°20′00″W.
Add LLARB IFR Waypoint, 29°30′10″N, 91°43′49″W.
8 Apr 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
22 Oct 2009 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
22 Oct 2009 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
22 Oct 2009 – 3 Jun 2010 No Major Changes.

WASHINGTON SECTIONAL
87th Edition, 11 Feb 2010

OBSTRUCTIONS
11 Feb 2010 No Major Changes.
8 Apr 2010 Add obst 371′MSL (310′ AGL), 36°15′27″N, 77°30′00″W.
3 Jun 2010 Add obst 934′MSL (435′AGL)UC, 39°26′04″N, 77°58′33″W.
Add obst 1288′MSL (315′AGL)UC, 39°31′10″N, 78°47′41″W.
Add obst 1357′MSL (250′AGL)UC, 39°56′02″N, 78°01′01″W.

AIRPORTS
11 Feb 2010 No Major Changes.
8 Apr 2010 HALIFAX COUNTY arpt closed, 36°26′22″N, 77°42′33″W.
Add CTAF 126.2 at A P HILL (FORT A P HILL) arpt, 38°04′07″N, 77°19′06″W.
Change WASHINGTON DULLES INTL ATCT freq from 128.425 to 134.425, 38°56′40″N, 77°27′21″W.
3 Jun 2010 No Major Changes.

NAVAIDS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

SPECIAL USE AIRSPACE
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MILITARY TRAINING ROUTES
11 Feb 2010 – 3 Jun 2010 No Major Changes.

MISCELLANEOUS
11 Feb 2010 – 3 Jun 2010 No Major Changes.

SUPPLEMENTAL COMMUNICATION REFERENCE

Contained within this tabulation, and listed alphabetically by airport name, are all private–use airports charted on the U.S. IFR Enroute Low and High Altitude charts in the United States, having terminal approach and departure control facilities. Additionally, listed by country, are all Canadian and Mexican airports that appear on the U.S. IFR Enroute charts with approach and departure control services. All frequencies transmit and receive unless otherwise noted. Radials defining sectors are outbound from the facility.

UNITED STATES

FACILITY NAME	CHART & PANEL
Frankfort, IL (LL4Ø) Chicago App/Dep Con 133.1 285.6	L–28H
Glasgow Industrial, MT (Ø7MT) Salt Lake Center App/Dep Con 126.85 305.2	H–1E, 2F, L–13D
USAF Academy Bullseye Aux Airstrip, CO (CO9Ø) ASOS 118.325	L–10F
West Kentucky Airpark, KY (5KY3) Memphis Center App/Dep Con 133.65 292.15	L–16I
William P Gwinn, FL (Ø6FA) Gwinn Tower 120.4 279.25 (Mon–Fri 1300–2100Z‡) Gnd Con 121.65 279.25	H–8I, L–23C

CANADA

FACILITY NAME	CHART & PANEL
Abbotsford, BC (CYXX) ATIS 119.8 (1500–0700Z‡) Victoria Trml App/Dep Con 132.7 (Avbl on ground) 290.8 Tower 119.4 (Inner) 121.0 (Outer) 295.0 (1500–0700Z‡) Gnd Con 121.8 MF 119.4 295.0 (0700–1500Z‡) (Shape irregular to 4500′)	H–1B, L–12F
Amos/Magny, QC (CYEY) Montreal Center App/Dep Con 125.9	H–11B
Atikokan Muni, ON (CYIB) MF 122.3 (5 NM to 4500′ No ground station)	L–14I
Barrie–Orillia (Lake Simcoe Rgnl), ON (CYLS) AWOS 122.55 (Pvt) Toronto Center App/Dep Con 124.025	H–11B, L–31D
Bar River, ON (CPF2) Toronto Center App/Dep Con 132.65	L–31C
Bathurst, NB (CZBF) Moncton Center App/Dep Con 134.25	L–32J
Boundary Bay, BC (CZBB) ATIS 125.5 (1500–0700Z‡) Vancouver App/Dep Con 132.3 363.8 Tower 118.1 (Inner) 127.6 (Outer) (1500–0700Z‡) Gnd Con 124.3 MF 118.1 (0700–1500Z‡ to 2000′. Vancouver Trml 125.2 above 2000′. Shape irregular to 2500′.)	H–1B, L–1E
Brampton, ON (CNC3) Toronto Trml App/Dep Con 119.3 253.1	L–31D
Brandon Muni, MB (CYBR) Winnipeg Center App/Dep Con 132.25 285.4 MF 122.1 (5 NM to 4000′)	H–2H
Brantford, ON (CYFD) Toronto Trml App/Dep Con 128.27	L–31D
Brockville–Thousand Islands Rgnl Tackaberry, ON (CNL3) Montreal Center App/Dep Con 134.675	L–32G
Bromont, QC (CZBM) Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM to 3400′)	L–32G
Burlington Airpark, ON (CZBA) Toronto Center App/Dep Con 119.3 253.1	L–31D
Castlegar/West Kootenay Rgnl, BC (CYCG) Vancouver Center App/Dep Con 134.2 227.3 MF 122.1 (5 NM to 6500′)	H–1C
Centralia/James T. Fld Muni, ON (CYCE) Toronto Center App/Dep Con 135.30	H–10G, 11B, L–31D
Charlottetown, PE (CYYG) Moncton Center App/Dep Con 135.65 384.8 MF 118.0 (5 NM to 3200′)	H–11E, L–32J
Chatham–Kent, ON (CNZ3) Cleveland Center App/Dep Con 132.25	H–10G, L–30G

FACILITY NAME	CHART & PANEL
Collingwood, ON (CNY3) Toronto Center App/Dep Con 124.02	H–11B, L–31D
Cornwall Rgnl, ON (CYCC) Boston Center App/Dep Con 135.25 377.1	L–32G
Cranbrook/Canadian Rockies Intl, BC (CYXC) Vancouver Center App/Dep Con 133.6 MF 122.3 (5 NM to 6100′)	H–1C
Debert, NS (CCQ3) Halifax Trml App/Dep Con 119.2	H–11E, L–32J
Digby, NS (CYID) Moncton Center App/Dep Con 123.9	L–32J
Downsview, ON (CYZD) Toronto Center App/Dep Con 133.4 MF 126.2 (1300–2300Z‡, 3 NM to 1700′)	H–11B, L–31E
Drummondville, QC (CSC3) Montreal Center App/Dep Con 132.35	L–32H
Earlton (Timiskaming Rgnl), ON (CYXR) MF 122.0 (5 NM to 3800′) AWOS 128.6	H–11B
Elliot Lake Muni, ON (CYEL) Toronto Center App/Dep Con 135.4	L–31C
Fort Frances Muni, ON (CYAG) Minneapolis Center App/Dep Con 120.9	L–14H
Fredericton Intl, NB (CYFC) ATIS 127.55 (1045–0245Z‡, OT AWOS) Moncton Center App/Dep Con 124.3 135.5 270.8 Tower 119.0 (1045–0245Z‡) Gnd Con 121.7 (1045–0245Z‡) MF 119.0 (0245–1045Z‡, 5 NM to 3500′)	H–11E, L–32I
Goderich, ON (CYGD) Toronto Center App/Dep 135.3 266.3	H–11B, L–31D
Greenwood, NS (CYZX) ATIS 128.85 244.3 (1100–0000Z‡) App/Dep Con 120.6 335.9 Tower 119.5 126.2 236.6 324.3 Gnd Con 133.75 289.4 Clnc Del 128.025 283.9	H–11E, L–32J
Grimsby Air Park, ON (CNZ8) Toronto Trml App/Dep Con 128.27 268.75 Tower 125.0 308.475	L–31E
Halifax/Shearwater, NS (CYAW) ATIS 129.175 (Ltd hrs) App/Dep Con 119.2 Tower 119.0 126.2 340.2 360.2 (Ltd hrs) Gnd Con 121.7 250.1	H–11E, L–32J
Halifax/Stanfield Intl, NS (CYHZ) ATIS 121.0 Moncton Center App/Dep Con 118.7 119.2 128.55 135.3 363.8 Tower 118.4 236.6 Gnd Con 121.9 275.8 Clnc Del 123.95 Apron Advisory 122.125	H–11E, L–32J
Hamilton, ON (CYHM) ATIS 128.1 Toronto Trml App/Dep Con 128.27 268.75 Tower 119.7 125.0 Gnd Con 121.6	H–10H, 11B, L–11B
Kingston, ON (CYGK) Montreal Center App/Dep Con 135.05 398.4 (0400–1115Z‡) MF 122.5 (1115–0400Z‡ 5 NM to 3300′)	H–11C, L–31E, 32F
Kitchener/Waterloo, ON (CYKF) ATIS 125.1 (1200–0400Z‡) Toronto Trml App/Dep Con 128.275 Waterloo Tower 126.0 118.55 (1200–0400Z‡) Gnd Con 121.8 MF 126.0 (0400–1200Z‡ 5 NM to 4000′)	H–11B, L–31D
Lachute, QC (CSE4) Montreal Center App Con 124.65 132.85 268.3 Montreal Center Dep Con 132.85 268.3	L–32G
La Tuque, QC (CYLQ) Montreal Center App/Dep Con 134.5	H–11C
Langley, BC (CYNJ) ATIS 124.5 (1630–0230Z, DT 1530–0330Z) Victoria Trml 132.7 290.8 Tower 119.0 (1630–0230Z, DT 1530–0330Z) Gnd Con 121.9 MF 119.0 (0230–1630Z, DT 0330–1530Z 3 NM to 1900′)	L–1E

FACILITY NAME	CHART & PANEL
Leamington, ON (CLM2)	L–30F
Cleveland Center App/Dep Con 132.45	
Lethbridge, AB (CYQL)	H–1D
ATIS 124.4 (1300–0545Z‡)	
Edmonton Center App/Dep Con 132.75 265.2 MF 121.0 (5 NM to 6000′)	
Lindsay, ON (CNF4)	L–31E, L–32F
Toronto Center App/Dep 134.25	
Liverpool/South Shore Rgnl, NS (CYAU)	L–32J
Moncton Center App/Dep Con 123.9	
London, ON (CYXU)	H–10G, 11B,
ATIS 127.8 (1120–0345Z‡)	L–30G, 31D
Toronto Center App/Dep 135.3 135.625	
Tower 119.4 125.65 (1120–0345Z‡) Gnd Con 121.9	
MF 119.4 (0345–1120Z‡ 5 NM to 3000′)	
Manitowaning/Manitoulin East Muni, ON (CYEM)	L–31C
Toronto Center App/Dep 135.4 260.9	
Maniwaki, QC (CYMW)	L–32G
Montreal Center App/Dep Con 126.57	
Mascouche, QC (CSK3)	L–32G
MF 122.35 (5 NM to 2500′. No gnd station. Excluding the portion S of the	
N shore of Riviere des Milles–Iles and 1 NM around Lac Agile Mascouche arpt.)	
Medicine Hat, AB (CYXH)	H–1D
AWOS 124.875 (0345–1245Z‡)	
MF 122.2 (1245–0345Z‡ 5 NM to 5400′)	
Midland/Huronia, ON (CYEE)	L–31D
Toronto Center App/Dep 124.025	
Miramichi, NB (CYCH)	H–11E, L–32J
Moncton Center App/Dep Con 123.7	
Moncton/Greater Moncton Intl, NB (CYQM)	H–11E, L–32J
ATIS 128.65	
App/Dep 124.4 Tower 120.8 236.6 Gnd Con 121.8 275.8	
Apron Advisory 122.075	
Mont–Laurier, QC (CSD4)	L–32G
Montreal Center App/Dep Con 126.57	
Montreal Intl (Mirabel), QC (CYMX)	H–11C, 12K, L–32G
ATIS 125.7	
Montreal Center App Con 124.65 132.85 268.3	
Montreal Dep Con 132.85 268.3	
MF 119.1 (7 NM shape irregular to 2000′) VFR Advisory 134.15	
Montreal/Pierre Elliott Trudeau Intl, QC (CYUL)	H–11C, 12K, L–32G
ATIS 133.7	
Montreal Trml App Con 118.9 124.65 126.9 132.85 268.3	
Tower 119.9 267.1 Gnd Con 121.9 275.8 Clnc Del 125.6 Apron 122.075	
Montreal Trml Dep Con 118.9 (SE–S–SW) 124.65 268.3 (W–NW–NE)	
VFR Advisory 134.15	
Montreal/St–Hubert, QC (CYHU)	H–11C, L–32G
ATIS 124.9 (Apr–Oct 1045–0500Z‡, Nov–Mar 1045–0400Z) AWOS 124.9	
Montreal Center App/Dep Con 125.15 268.3	
St. Hubert Tower 118.4 (Apr–Oct 1045–0500Z‡, Nov–Mar 1045–0400Z)	
Gnd Con 126.4 MF 118.4 (Apr–Oct 0500–1045Z‡, Nov–Mar	
0400–1045Z 5 NM shape irregular to 2500′) VFR Advisory 134.15	
Muskoka, ON (CYQA)	H–11B, L–31D
AWOS 124.575	
MF 122.3 (5 NM to 3900′)	
Nanaimo, BC (CYCD)	H–1B, L–1E
Victoria Trml App/Dep 120.8 133.95 252.3 MF 122.1 1330–0530Z‡ (5 NM to 2500′)	
North Bay, ON (CYYB)	H–11B, L31D
ATIS 124.9 (1130–0330Z‡)	
Toronto Center App/Dep 121.225 127.25	
MF 118.3 (1130–0330Z‡ 7 NM to 5000′)	
Oshawa, ON (CYOO)	L–31E
ATIS 125.675 (1130–0330Z‡)	
Toronto Trml App/Dep Con 133.4	
Tower 120.1 (1130–0330Z‡) Gnd Con 118.4	
MF 120.1 (0330–1130Z‡ 5 NM to 3000′)	

FACILITY NAME	CHART & PANEL
Ottawa/Carp, ON (CYRP) ATIS 121.15 Ottawa Trml App/Dep Con 128.175 252.5	L–31E, 32F
Ottawa/Gatineau, QC (CYND) Ottawa Trml App/Dep Con 127.7 128.175 MF 122.3 (5 NM shape irregular to 2500′) VFR Advisory Ottawa Trml 127.7	H–11C, L–32G
Ottawa/MacDonald–Cartier Intl, ON (CYOW) ATIS 121.15 Ottawa App Con 135.15 Tower 118.8 (VFR South) 120.1 (VFR North) 118.8 341.3 Gnd Con 121.9 Clnc Del 119.4 Ottawa Dep Con 128.175	L–11C
Owen Sound/Billy Bishop Rgnl, ON (CYOS) Toronto Center App/Dep 132.575 290.6	L–31D
Pelee Island, ON (CYPT) Cleveland Center App/Dep Con 126.35 360.0	L–30F
Pembroke, ON (CYTA) Montreal Center App/Dep Con 135.2 Petawawa Advisory 126.4 250.1 (Mon–Fri 1300–2130Z‡, OT PPR)	H–11C, L–31E, 32F
Penticton, BC (CYYF) Vancouver Center App/Dep Con 133.5 351.3 MF 118.5 (5 NM to 4100′)	H–1B
Peterborough, ON (CYPQ) AWOS 126.925 Toronto Center App/Dep 134.25	H–11B, L–31E, 32F
Pincher Creek, AB (CZPC) Edmonton Center App/Dep Con 132.75 265.2	H–1D
Pitt Meadows, BC (CYPK) ATIS 125.0 (1500–0700Z‡) Vancouver Center App Con 128.6 352.7 (Outer) Pitt Tower 126.3 (1500–0700Z‡) Gnd Con 123.8 Vancouver Center Dep Con 132.3 363.8 (South) MF 126.3 (0700–1500Z‡) (3NM to 2500′)	L–1E
Quebec/Jean Lesage Intl, QC (CYQB) ATIS 134.6 Montreal Center App/Dep Con 124.0 127.85 135.025 270.9 322.8 Tower 118.65 236.6 Gnd Con 121.9 250.0	H–11D, L–32H
Riviere Du Loup, QC (CYRI) AWOS 122.025 (Pvt) Montreal Center App/Dep Con 125.1 299.6	H–11D
Rouyn Noranda, QC (CYUY) Montreal Center App/Dep Con 125.9 MF 122.2 (5 NM to 4000′)	H–11B
Saint John, NB (CYSJ) Moncton Center App/Dep Con 124.3 135.5 270.8 MF 118.5 (5 NM to 3400′)	H–11E, L–32J
Sarnia (Chris Hadfield), ON (CYZR) AWOS 119.125 Toronto Center 134.375	H–10G, 11B, L–30F
Sault Ste Marie, ON (CYAM) ATIS 133.05 (1300–0100Z‡) Toronto Center App/Dep Con 132.65 344.5 Tower 118.8 (1300–0100Z‡) Gnd Con 121.7 MF 118.8 (0100–1300Z‡ 5 NM irregular shape to 3000′)	H–2K, L–31B
Sherbrooke, QC (CYAM) AWOS 126.25 Montreal Center App/Dep Con 132.55 MF 123.5 (Ltd hrs 5 NM to 3800′)	H–11D, L–32H
South Renfrew Muni, ON (CNP3) Montreal Center App/Dep 124.275	L–31E, 32F
Southport, MB (CYPG) ATIS 120.85 (Mon–Fri 1400–2300Z‡ except holidays) Tower 126.2 384.2 (Mon–Fri 1400–2300Z‡ except holidays) Gnd Con 121.7 275.8	H–2H

FACILITY NAME	CHART & PANEL
Springwater Barrie Airpark, ON (CNA3) Toronto Center App/Dep Con 124.025	L–31D
St. Catherines/Niagara District, ON (CYSN) ATIS 128.525 (1215–0200Z‡) Toronto Trml App/Dep Con 133.4 253.1 MF 123.25 (1215–0200Z‡ 5 NM to 3300′)	H–10H, 11B, L–31E
St. Frederic, QC (CSZ4) Montreal Center App/Dep Con 135.025 270.9	L–32H
St. Georges, QC (CYSG) Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM 3900′ ASL)	H–32H, L–11D
St. Jean, QC (CYJN) Montreal Center App/Dep Con 125.15 268.3 Tower 118.2 (Apr–Oct 1230–0230Z‡ Nov–Mar 1300–0200Z‡) Gnd Con 121.7	L–32G
Sudbury, ON (CYSB) ATIS 127.4 Toronto Center App/Dep Con 135.5 MF 125.5 (7 NM to 4000′)	H–31B, 10G, L–31D
Summerside, PE (CYSU) AWOS 122.55 (Pvt) Moncton Center App/Dep Con 124.4 384.8	H–11E, L–32J
Thunder Bay, ON (CYQT) ATIS 128.8 (1100–0400Z‡) Winnipeg Center App/Dep Con 132.125 (0400–1100Z‡) Tower 118.1 (1100–0400Z‡) Gnd Con 121.9 App/Dep 119.2 MF 118.1 (0400–1100Z‡ 5 NM to 4000′)	H–2J, L–14J
Timmins/Victor M. Power, ON (CYTS) ATIS 124.95 (1000–0500Z‡) Toronto Center App/Dep Con 128.3 MF 122.3 (5 NM to 4000′)	H–11B
Toronto/Buttonville Muni, ON (CYKZ) ATIS 127.1 (1200–0400Z‡) Toronto Trml App/Dep Con 133.4 Tower 124.8 119.9 (1200–0400Z‡) Gnd Con 121.8 MF 124.8 (0400–1200Z‡ No gnd station. 5 NM shape irregular to below 2500′)	L–31E
Toronto/Billy Bishop Toronto City Airport, ON (CYTZ) ATIS 133.6 (1130–0400Z‡) App/Dep Con 133.4 Tower 118.2 119.2 (1130–0400Z‡) Gnd Con 121.7	L–31E
Toronto/Lester B Pearson Intl, ON (CYYZ) ATIS 120.825 App Con 124.475 125.4 132.8 Dep Con 127.575 128.8 Tower 118.35 118.7 Gnd Con 118.0 119.1 121.65 121.9 Clnc Del 121.3 (1200–0400Z‡)	H–11B, L–31D
Trenton, ON (CYTR) ATIS 135.45 257.7 App/Dep Con 128.4 324.3 Tower 128.7 236.6 Gnd Con 121.9 275.8 Clnc Del 124.35 286.4	H–11C, L–31E, 32F
Trenton/Mountain View, ON (CPZ3) Trenton Mil Advisory 268.0	H–11C, L–31E, 32F
Trois–Rivieres, QC (CYRQ) Montreal Center App/Dep Con 128.225 229.2 MF 123.0 (5 NM to 3200′)	H–11C, L–32H
Val–D'or, QC (CYVO) Montreal Center App/Dep Con 125.9 308.3 MF 118.5 (1030–0325Z‡ 5 NM to 4000′)	H–11B
Vancouver Intl, BC (CYVR) ATIS 124.6 124.75 App Con 128.6 128.17 352.7 (Outer) 133.1 134.225 352.7 (Inner) Dep Con 126.125 (north) 132.3 (south) 363.8 Tower 118.7 (south) 119.55 (north) VFR 124.0 125.65 226.5 236.6 Gnd Con 121.7 (south) 127.15 (north) 275.8 Clnc Del 121.4	H–1B, L–1E

FACILITY NAME	CHART & PANEL
Victoria Intl, BC (CYYJ) ATIS 118.8 (1400–0800Z‡) App Con 125.95 308.4 Dep Con 133.85 308.4 Tower 119.1 (Outer) 119.7 (Inner) 239.6 Gnd Con 121.9 361.4 (1400–0800Z‡ OT ctc Kamloops 119.7) Clnc Del 126.4 (1400–0800Z‡)	H–1B, L–1E
Victoriaville, QC (CSR3) Montreal Center App Con 132.35	L–32H
Waterville/Kings Co Muni, NS (CCW3) Greenwood Trml App/Dep Con 120.6 335.9 Greenwood Tower 119.5 324.3	L–32J
Wiarton, ON (CYVV) Toronto Center App/Dep Con 132.575 MF 122.2 (5 NM to 3700′)	H–11B, L–31D
Windsor, ON (CYQG) ATIS 134.5 (1130–0330Z‡) Detroit App/Dep Con 126.85 127.5 134.3 348.3 363.2 Tower 124.7 (1130–0330Z‡) Gnd Con 121.7 MF 124.7 (0330–1130Z‡ 6 NM irregular shape to below 3000′) VFR Advisory Detroit App Con 134.3	H–10G, L–8J
Yarmouth, NS (CYQI) Moncton Center App/Dep Con 123.9 368.5 MF 123.0 (5 NM to 3100′)	H–11E, L–32I

MEXICO

FACILITY NAME	CHART & PANEL
Abraham Gonzalez Intl (MMCS) Juarez App Con 119.9 Juarez Tower 118.9	H–4K, L–6F
Del Norte Intl (MMAN) ATIS 127.55 (1300–0300Z‡) Monterrey App 119.75 120.4 Tower 118.6	H–7B, L–20G
Durango Intl (MMDO) ATIS 132.1 Tower 118.1 Durango Info 122.3	H–7A
General Abelardo L Rodriguez Intl (MMTJ) ATIS 127.9 Tijuana App Con 119.5 120.3 Tijuana Tower 118.1 Clnc Del 122.35 Tijuana Info 132.1	H–4H, L–4H
General Lucio Blanco Intl (MMRX) Reynosa App Con 118.8 Reynosa Tower 118.8	H–7B, L–20H
General Mariano Escobedo Intl (MMMY) ATIS 127.7 Monterrey App Con 119.75 120.4 Monterrey Tower 118.1 Gnd Con 121.9	H–7B, L–20G
General R Fierro Villalobos Intl (MMCU) ATIS 127.9 Chihuahua App Con 121.0 Chihuahua Tower 118.4	L–6I
General Rodolfo Sanchez Taboada Intl (MMML) ATIS 127.6 Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3	H–4H, L–4J, 5A
General Servando Canales Intl (MMMA) Matamoros App Con 118.0 Matamoros Tower 118.0	H–7C, L–21A
Plan De Guadalupe Intl (MMIO) Saltillo App Con 127.4 Saltillo Tower 118.4	H–7B
Quetzalcoatl Intl (MMNL) Nuevo Laredo App Con 118.3 Nuevo Laredo Tower 118.3	H–7B, L–20G
Torreon Intl (MMTC) App Con 119.6 Tower 118.5	H–7A

In support of the Federal Aviation Administration's Runway Incursion Program, selected towered airport diagrams have been published in the Airport Diagram section of the A/FD. Diagrams will be listed alphabetically by associated city and airport name. Airport diagrams, depicting runway and taxiway configurations, will assist both VFR and IFR pilots in ground taxi operations. The airport diagrams in this publication are the same as those published in the U.S. Terminal Procedures Publications. For additional airport diagram legend information see the U.S. Terminal Procedures Publication.

NOTE: Some text data published under the individual airport in the front portion of the A/FD may be more current than the data published on the Airport Diagrams. The airport diagrams are updated only when significant changes occur.

GENERAL INFORMATION

PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

Available pilot controlled lighting (PCL) systems are indicated as follows:

1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g., (A1), (V), (✿)
2. Approach lighting systems that do not bear a system identification are indicated with a negative "(L)" beside the name.

A star (★) indicates non-standard PCL, consult the individual airport in the front portion of the A/FD, e.g., (L★)

To activate lights use frequency indicated in the communication section of the chart with a (L) or the appropriate lighting system identification e.g., UNICOM 122.8 (L), (A1), (V)

KEY MIKE	FUNCTION
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-off)

CHART CURRENCY INFORMATION

FAA procedure amendment number → Amdt 11A 99365 → Date of latest change
FAA procedure amendment number → Orig 00365 → Date of latest change

The Chart Date indentifies the Julian date the chart was added to the volume or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest addition or change was first published.

The Procedure Amendment Number precedes the Chart Date, and changes any time instrument information (e.g., DH, MDA, approach routing, etc.) changes. Procedure changes also cause the Chart Date to change.

MISCELLANEOUS

★ Indicates a non-continuously operating facility, see the individual airport in the front portion of the A/FD.
Indicates control tower temporarily closed UFN.

10042
LEGEND

INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM/AIRPORT SKETCH

Runways

Hard Surface | Other Than Hard Surface | Stopways,Taxiways, Parking Areas, Water Runways | Displaced Threshold

Closed Runway | Closed Taxiway | Under Construction | Metal Surface

ARRESTING GEAR: Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.

uni-directional | bi-directional | Jet Barrier

ARRESTING SYSTEM

REFERENCE FEATURES

Buildings
Tanks
Obstructions
Airport Beacon #
Runway
Radar Reflectors
Control Tower #
Hot Spot

When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.

A D symbol is shown to indicate runway declared distance information available, see appropriate A/FD, Alaska or Pacific Supplement for distance information.

Helicopter Alighting Areas

Negative Symbols used to identify Copter Procedures

landing point

Runway Threshold elevation.....THRE 123
Runway TDZ elevation.....TDZE 123

Runway Slope.....0.8% UP ⟶ (shown when runway slope is greater than or equal to 0.3%)
⟵ 0.3% DOWN

NOTE:
Runway Slope measured to midpoint on runways 8000 feet or longer.

U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Approach light symbols are shown in the Flight Information Handbook.

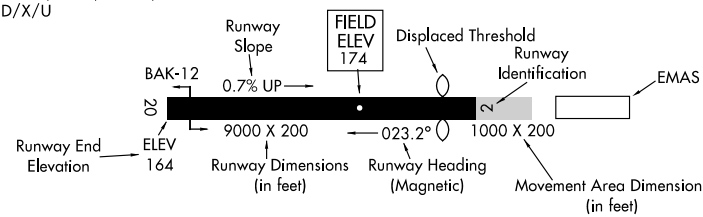
Airport diagram scales are variable.

True/magnetic North orientation may vary from diagram to diagram

Coordinate values are shown in 1 or ½ minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.

NOTE:
All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in FLIP. (Foreign Only)

Runway Weight Bearing Capacity/or PCN Pavement Classification Number is shown as a codified expression.
Refer to the appropriate Supplement/Directory for applicable codes e.g.,
RWY 14-32 S75, T185, ST175, TT325
PCN 80 F/D/X/U



SCOPE

Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations and provide information for updating Computer Based Navigation Systems (I.E., INS, GPS) aboard aircraft. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

HOT SPOTS

An ''airport surface hot spot'' is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

A ''hot spot'' is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as circles or polygons designated as ''HOT[1]'', ''HOT[2]'', etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

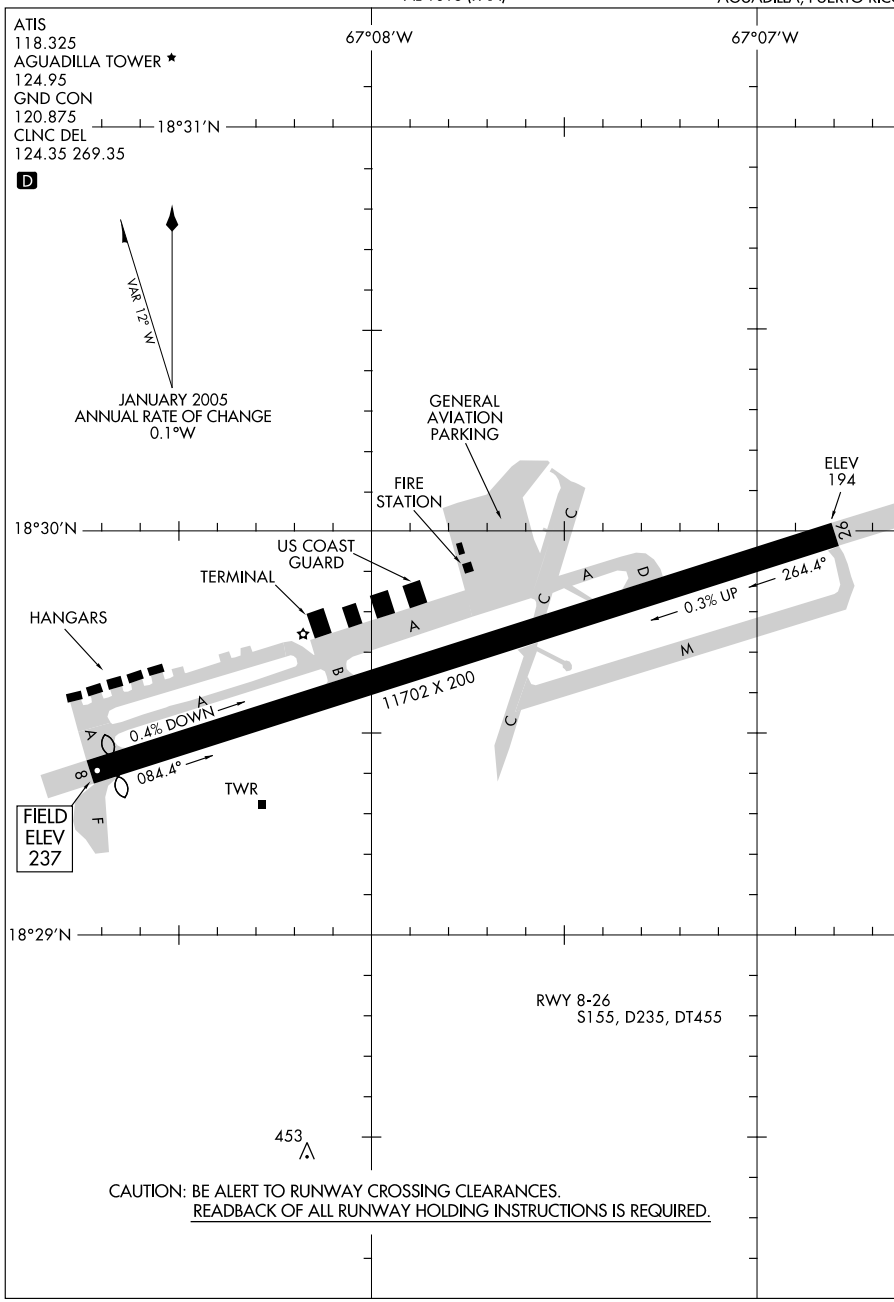
CITY/AIRPORT	HOT SPOT	DESCRIPTION
ALABAMA		
MONTGOMERY		
MONTGOMERY RGNL (DANNELY FIELD) (MGM)	HOT[1]	Intersection of Twy A3 and the terminal ramp. Potential confusion of Twy A3 as the taxi route to Rwy 10–28.
	HOT[2]	Intersection of the Twy A5 and the ANG ramp. Potential exiting Rwy 10–28 at Twy A5.
FLORIDA		
DAYTONA BEACH		
DAYTONA BEACH INTL (DAB)	HOT[1]	Pilots taxiing southbound on Twy W sometimes miss the right turn on Twy S and enter the runway without clearance.
HOLLYWOOD		
NORTH PERRY (HWO)	HOT[1]	Southbound on Twy D for Rwy 27R departures–Pilots miss the turn onto Twy P and enter the rwy.
	HOT[2]	The hold line for Rwy 36L is also the hold line for Rwy 09R.
	HOT[3]	Acft taxiing on Twy L westbound to depart on Rwy 18R–36L, Twy L crosses the apch end of Rwy 36R. Pilots should obtain clearance from ground control prior to crossing Rwy 36R.
MIAMI		
MIAMI INTL, FL (MIA)	HOT[1]	Multiple intersections closely spaced.
	HOT[2]	Departure taxi out of Spot 15, Spot 14, Spot 13, misidentification of Twy P and Twy Q at Twy T has lead to rwy incursions onto Rwy 12–30.
	HOT[3]	Two rwy ends in close proximity.
STUART		
WITHAM FIELD (SUA)	HOT[1]	Intersecting rwys, wrong rwy departure risk. (Check rwy alignment.)
	HOT[2]	Rwy 12 and Twy A1.
GEORGIA		
ATLANTA		
HARTSFIELD–JACKSON ATLANTA INTL (ATL)	HOT[1]	Intersections of Twy C and Twy D at Rwy 08L–26R. Hold short line is only 250 feet after exiting the FBO ramp. Rwy hold bar is canted which peaks towards the twy.
	HOT[2]	Intersections of Twy C and Twy D at Rwy 08R–26L. Caution transitioning between the parallel rwys. Rwy hold bar is canted which peaks towards the twy. Rwy hold short line is only 380′ away after exiting Rwy 08L–26R and 70′ south of the Twy B centerline.
	HOT[3]	Intersection of Twy H at Rwy 08R–26L. Aircraft travelling westbound for the Twy V end–around, mistakenly turn southbound on Twy H and enter Rwy 08R–26L.
	HOT[4]	Intersection of Twy D at Rwy 09L–27R. Aircraft southbound on Twy D fail to turn on Twy L and Twy M and enter Rwy 09L–27R. Aircraft crossing Rwy 09L–27R at Twy D southbound to Twy K must turn 45 degrees left immediately after crossing the rwy hold bar.

AUGUSTA		
AUGUSTA RGNL AT BUSH FLD (AGS)	HOT[1]	Intersection of Twy E and Rwy 17–35.
KENTUCKY		
LOUISVILLE		
BOWMAN FIELD (LOU)	HOT[1]	Acft operating near Rwy 06–24, Rwy 15–33 at midfield are in close proximity to intersecting/crossing rwy and twys.
NORTH CAROLINA		
CHARLOTTE		
CHARLOTTE/DOUGLAS INTL (CLT)	HOT[1]	Confusing intersection due to convergence of Twy R, Twy A, Twy C and Twy C9, along with grass island.
	HOT[2]	Pilots exiting Rwy 18C–36C on Twy S for either Twy E or Twy F mistakenly turn left on Twy E5 and reenter the rwy.
RALEIGH/DURHAM		
RALEIGH–DURHAM INTL (RDU)	HOT[1]	Intersection of Rwy 5R–23L and Twy C.
TENNESEE		
KNOXVILLE		
MC GHEE TYSON (TYS)	HOT[1]	Holding position marking for full length of Rwy 23L just beyond Twy A8 and Twy A.
	HOT[2]	Ramp exit Twy R5 short distance from Twy A and Rwy 05R–23L. Pilots miss turn onto Twy A.
	HOT[3]	Ramp exit Twy R4 short distance from Twy A and Rwy 05R–23L. Pilots miss turn onto Twy A.
	HOT[4]	Acft taxiing on Twy B4 southeast bound sometime fall to hold short of Rwy 23L.

10154

AIRPORT DIAGRAM

AGUADILLA/RAFAEL HERNANDEZ (BQN) (TJBQ)
AL-1016 (FAA)
AGUADILLA, PUERTO RICO

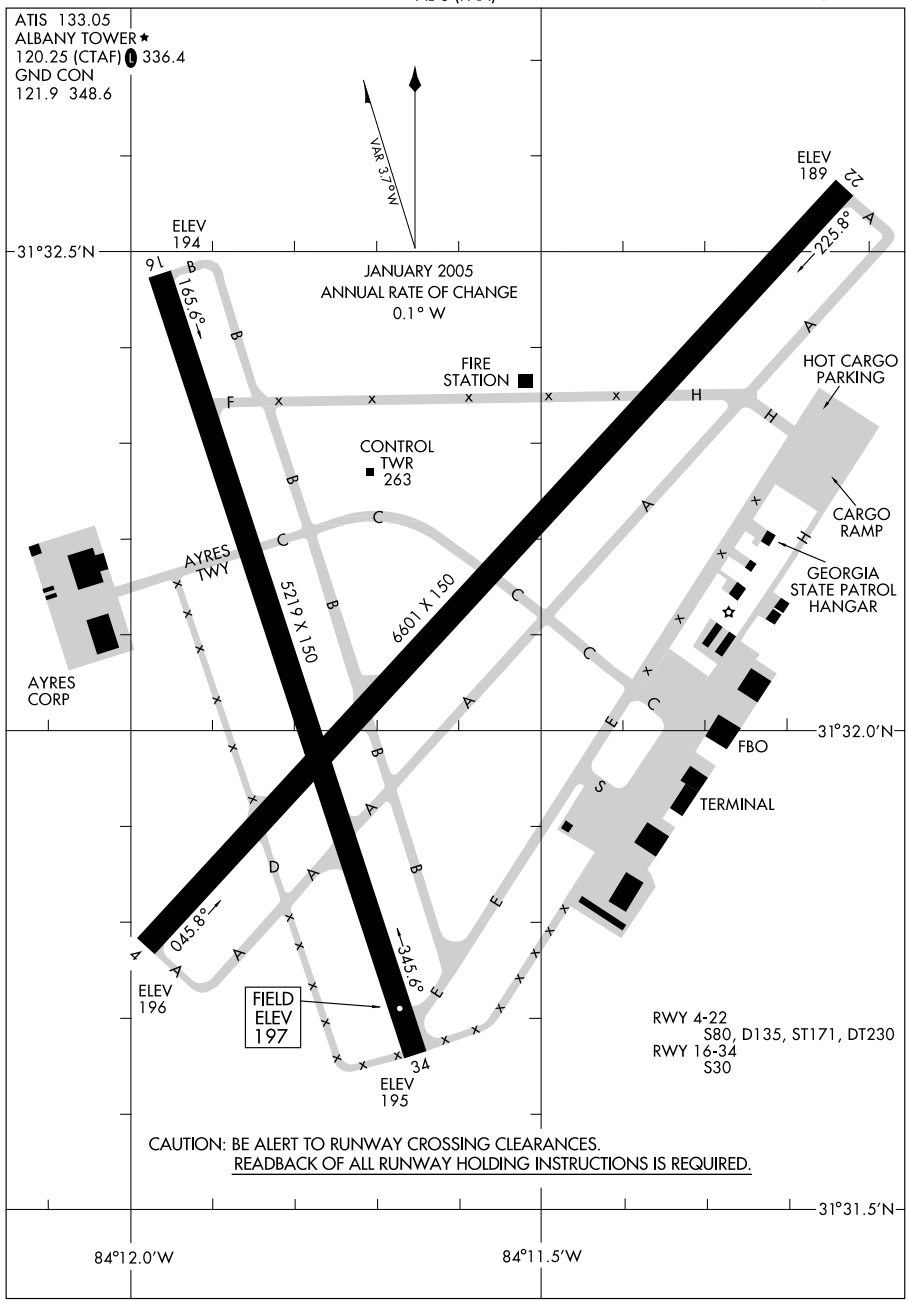


AIRPORT DIAGRAM
10154
AGUADILLA, PUERTO RICO
AGUADILLA/RAFAEL HERNANDEZ (BQN) (TJBQ)

08213

AIRPORT DIAGRAM

ALBANY/ SOUTHWEST GEORGIA RGNL (ABY)
ALBANY, GEORGIA
AL-8 (FAA)



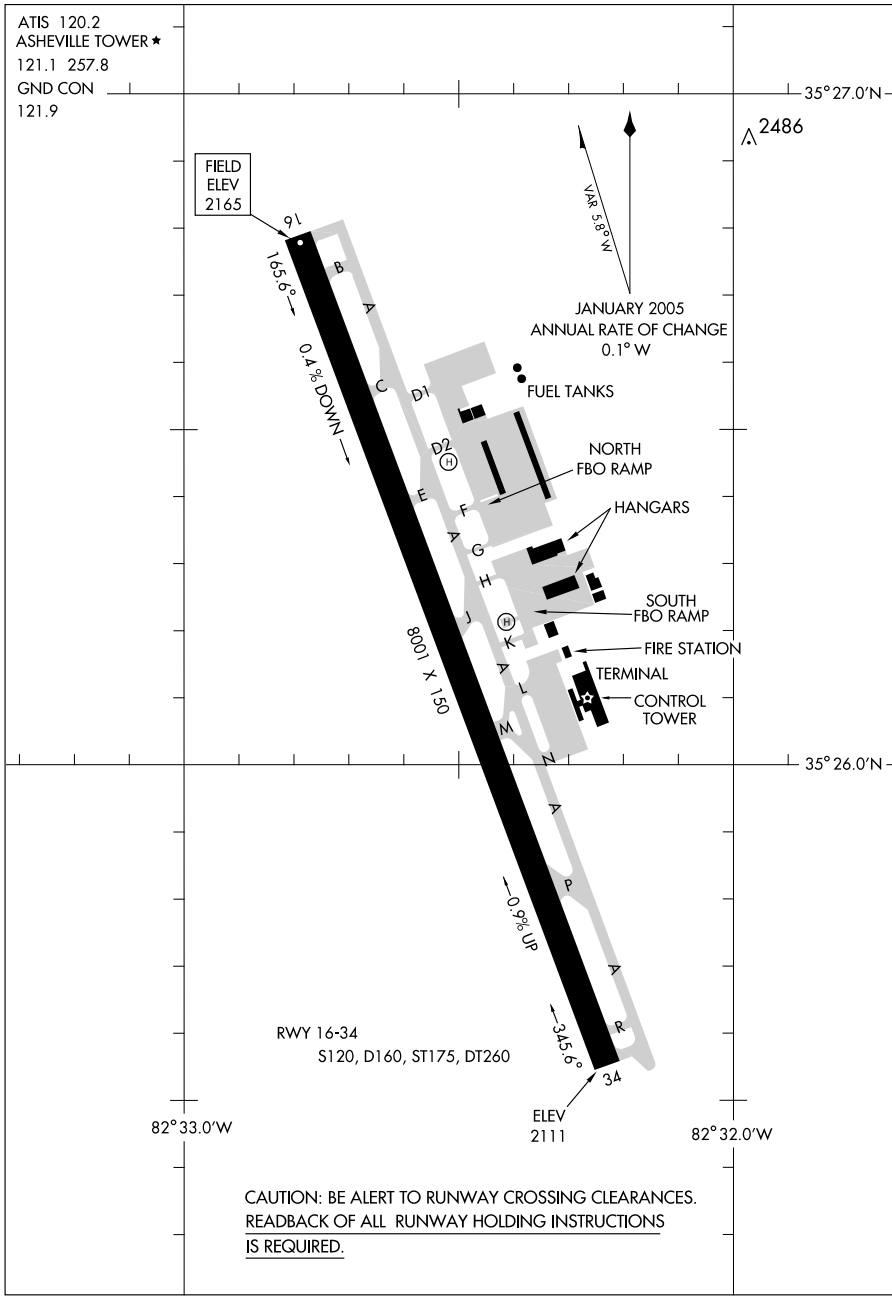
AIRPORT DIAGRAM
08213
ALBANY, GEORGIA
ALBANY/ SOUTHWEST GEORGIA RGNL (ABY)

08101

AIRPORT DIAGRAM

AL-5061 (FAA)

ASHEVILLE RGNL (AVL)
ASHEVILLE, NORTH CAROLINA



AIRPORT DIAGRAM

08101

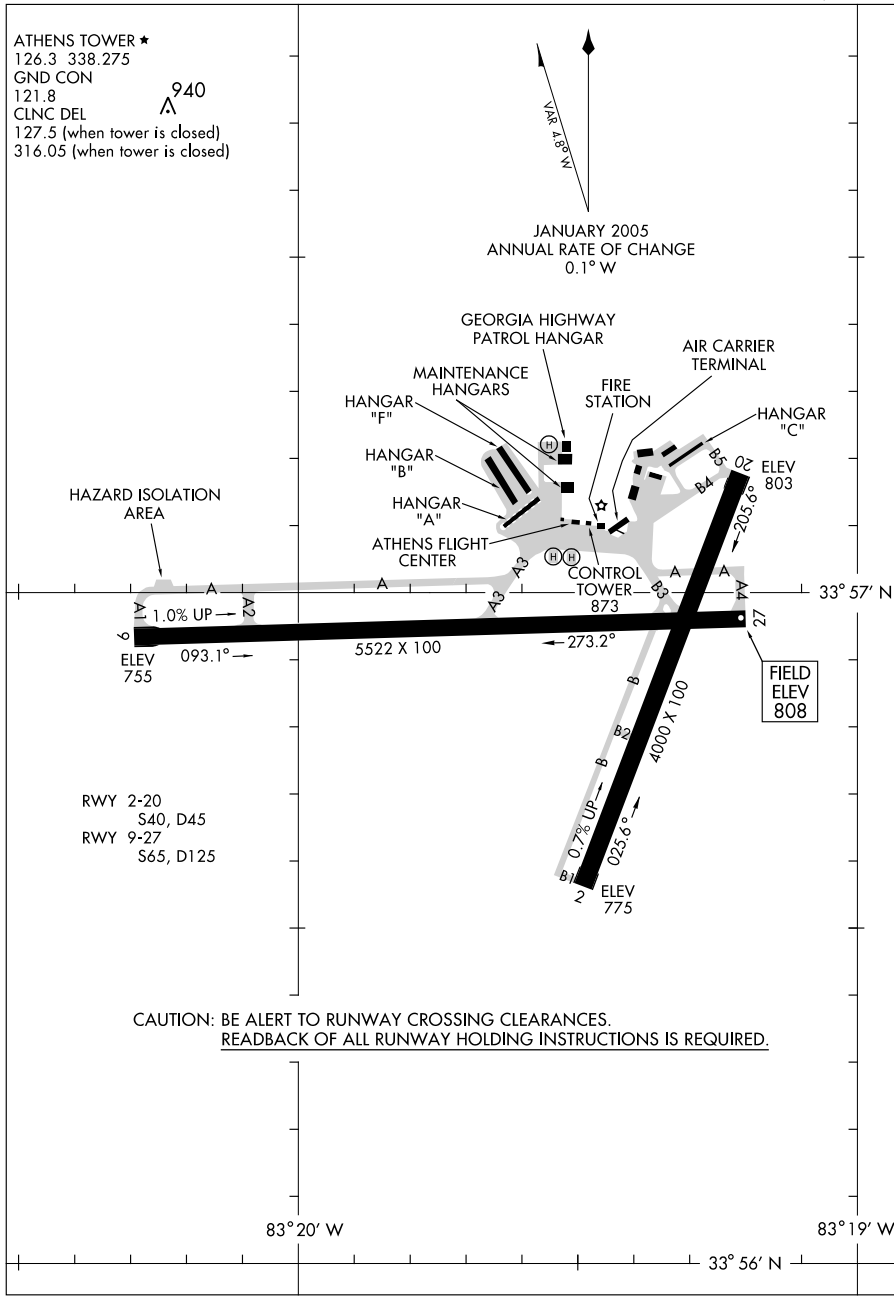
ASHEVILLE, NORTH CAROLINA
ASHEVILLE RGNL (AVL)

07018

AIRPORT DIAGRAM

AL-983 (FAA)

ATHENS/ BEN EPPS (AHN)
ATHENS, GEORGIA



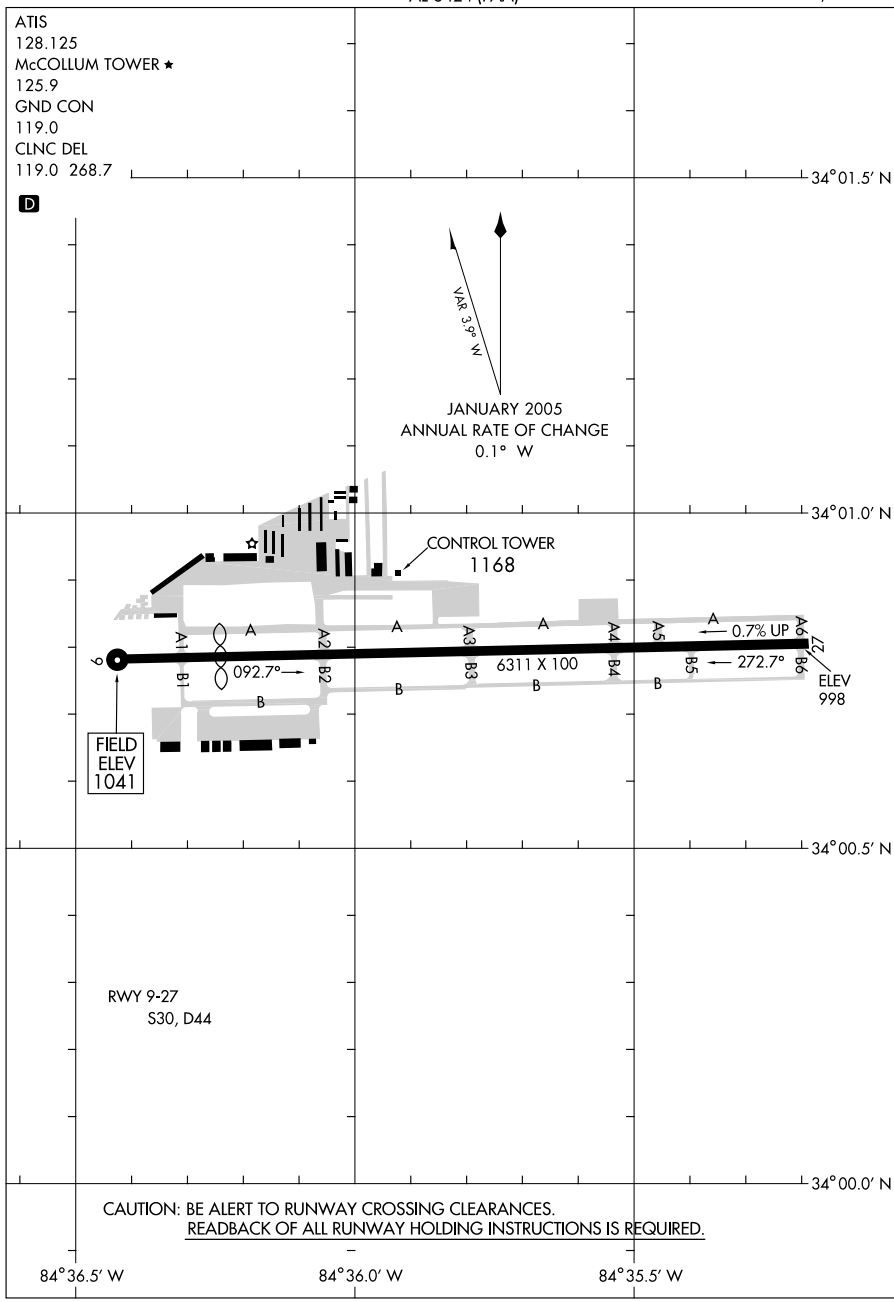
AIRPORT DIAGRAM
07018

ATHENS, GEORGIA
ATHENS/ BEN EPPS (AHN)

10042

AIRPORT DIAGRAM

ATLANTA/ COBB COUNTY-McCOLLUM FIELD (RYY)
AL-6424 (FAA)
ATLANTA, GEORGIA



AIRPORT DIAGRAM

10042

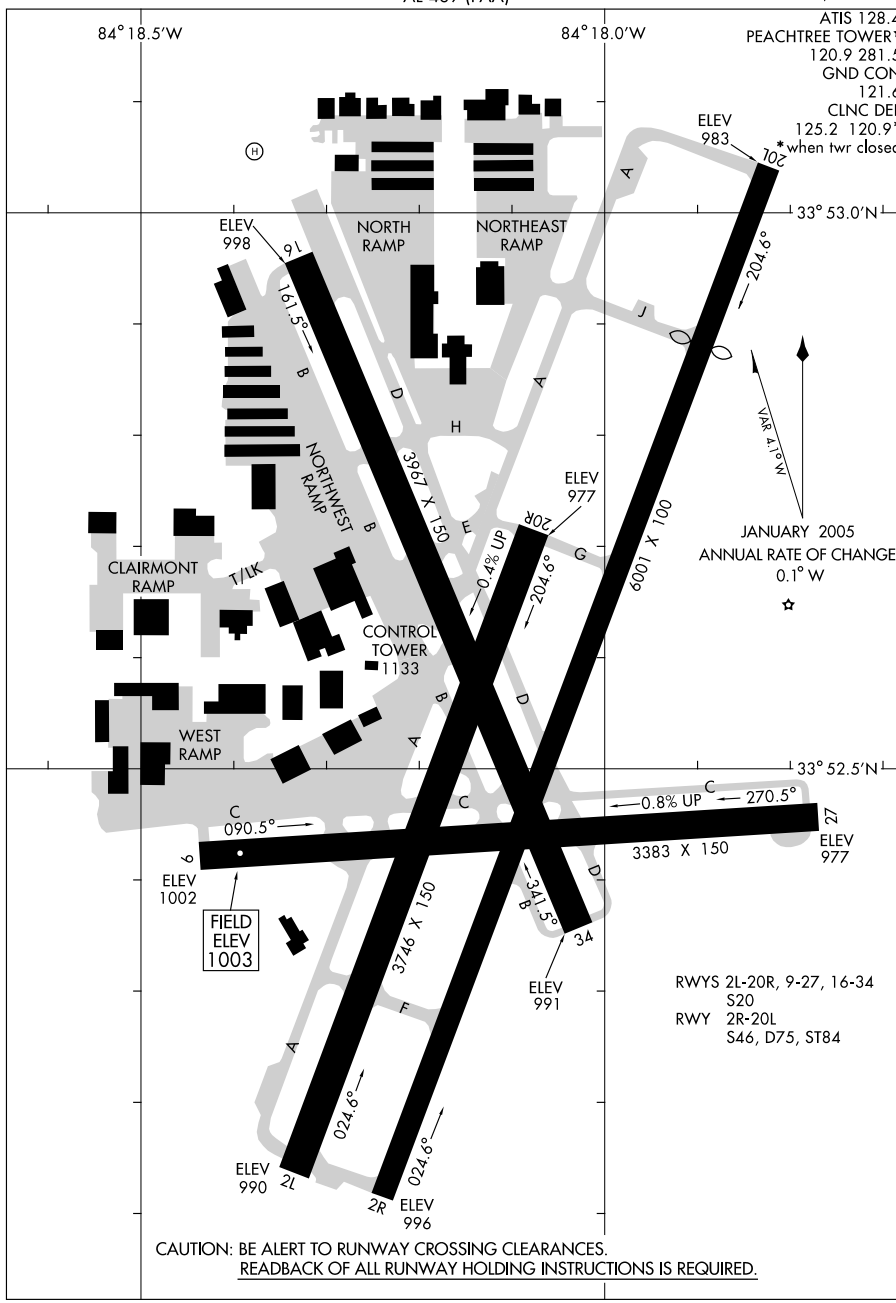
ATLANTA, GEORGIA
ATLANTA/ COBB COUNTY-McCOLLUM FIELD (RYY)

09015

AIRPORT DIAGRAM

AL-469 (FAA)

ATLANTA/DEKALB-PEACHTREE (PDK)
ATLANTA, GEORGIA



AIRPORT DIAGRAM

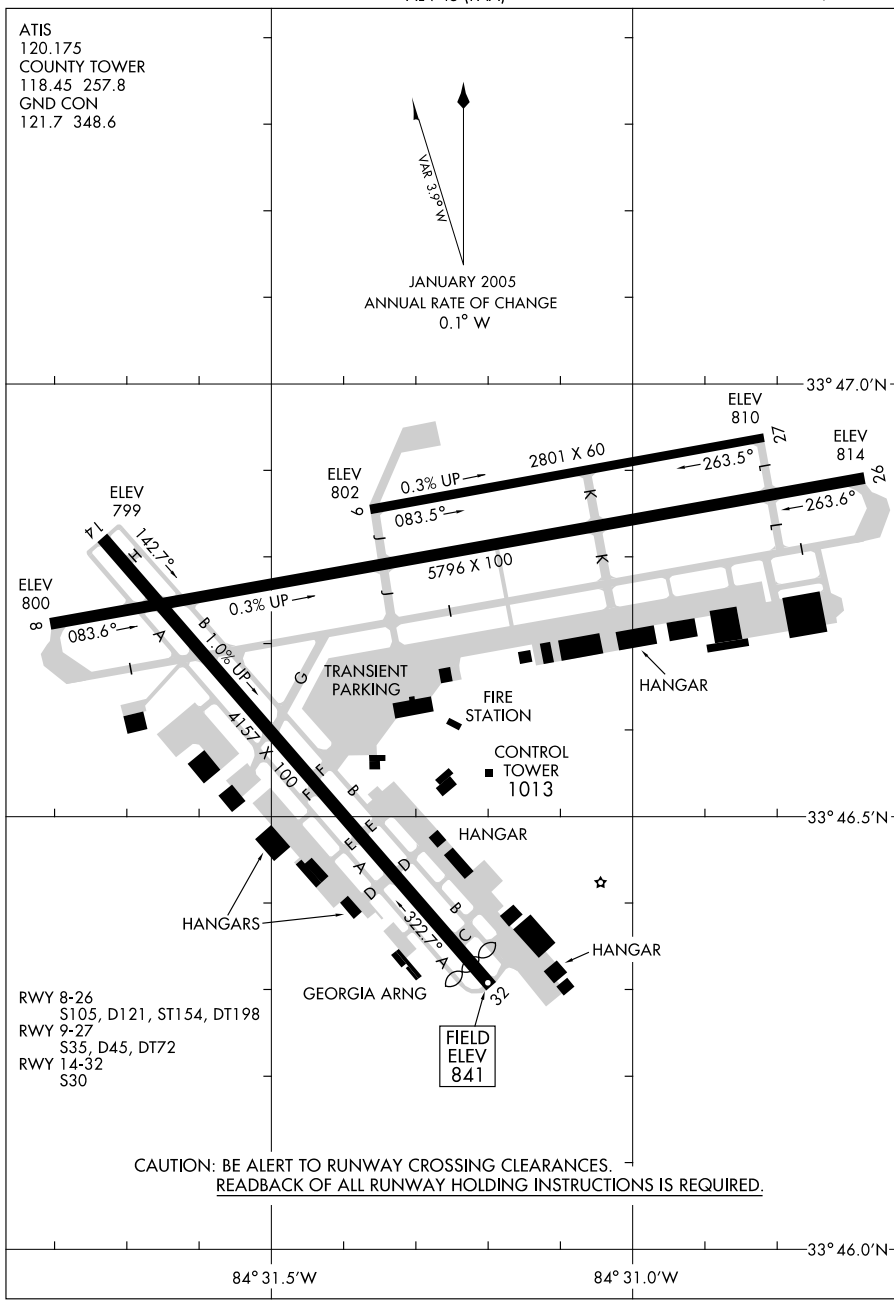
09015

ATLANTA, GEORGIA
ATLANTA/DEKALB-PEACHTREE (PDK)

09239

AIRPORT DIAGRAM

ATLANTA/FULTON COUNTY AIRPORT-BROWN FIELD (FTY)
AL-745 (FAA)
ATLANTA, GEORGIA



AIRPORT DIAGRAM

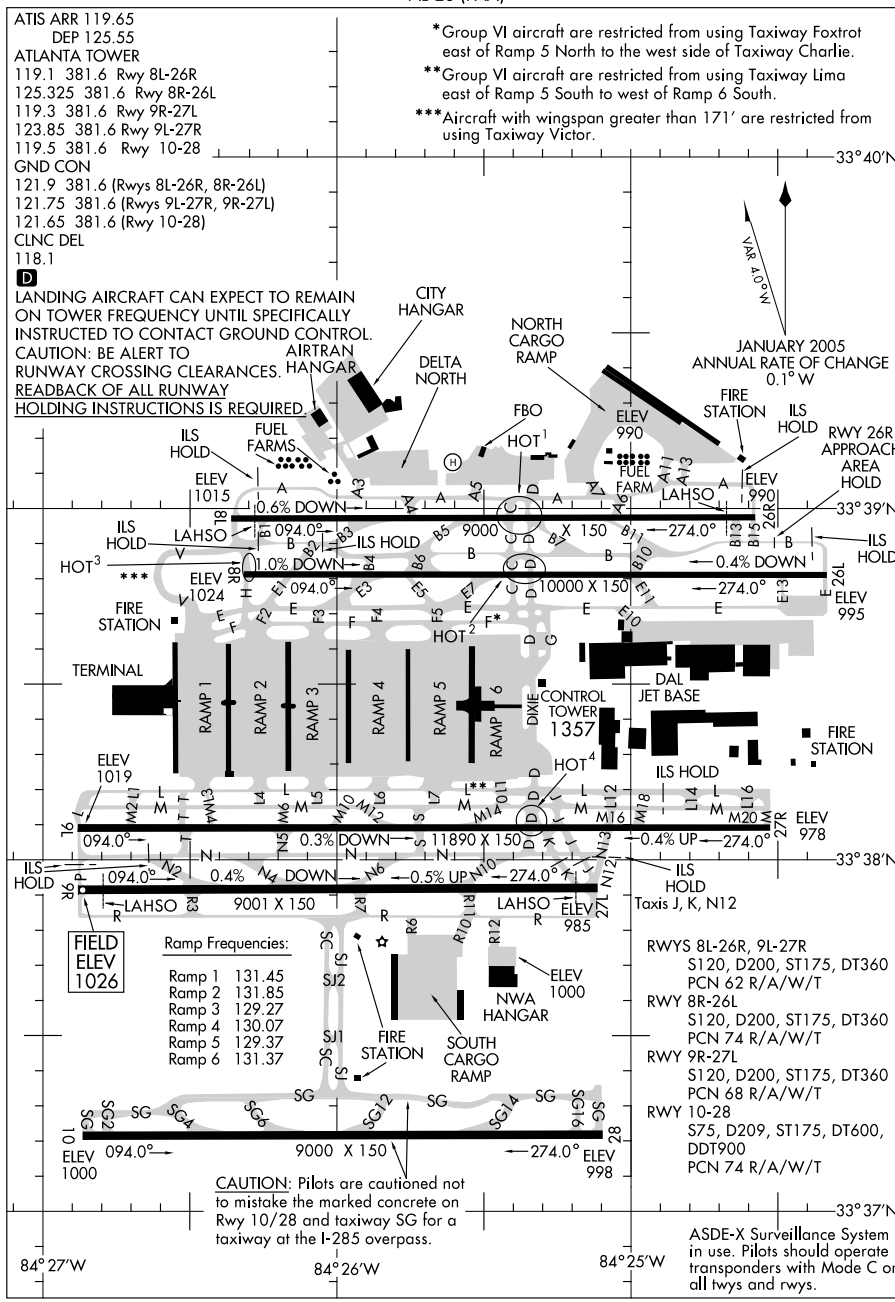
09239

ATLANTA, GEORGIA
ATLANTA/FULTON COUNTY AIRPORT-BROWN FIELD (FTY)

09351

AIRPORT DIAGRAM

ATLANTA/ HARTSFIELD - JACKSON ATLANTA INTL (ATL)
AL-26 (FAA)
ATLANTA, GEORGIA



AIRPORT DIAGRAM

09351

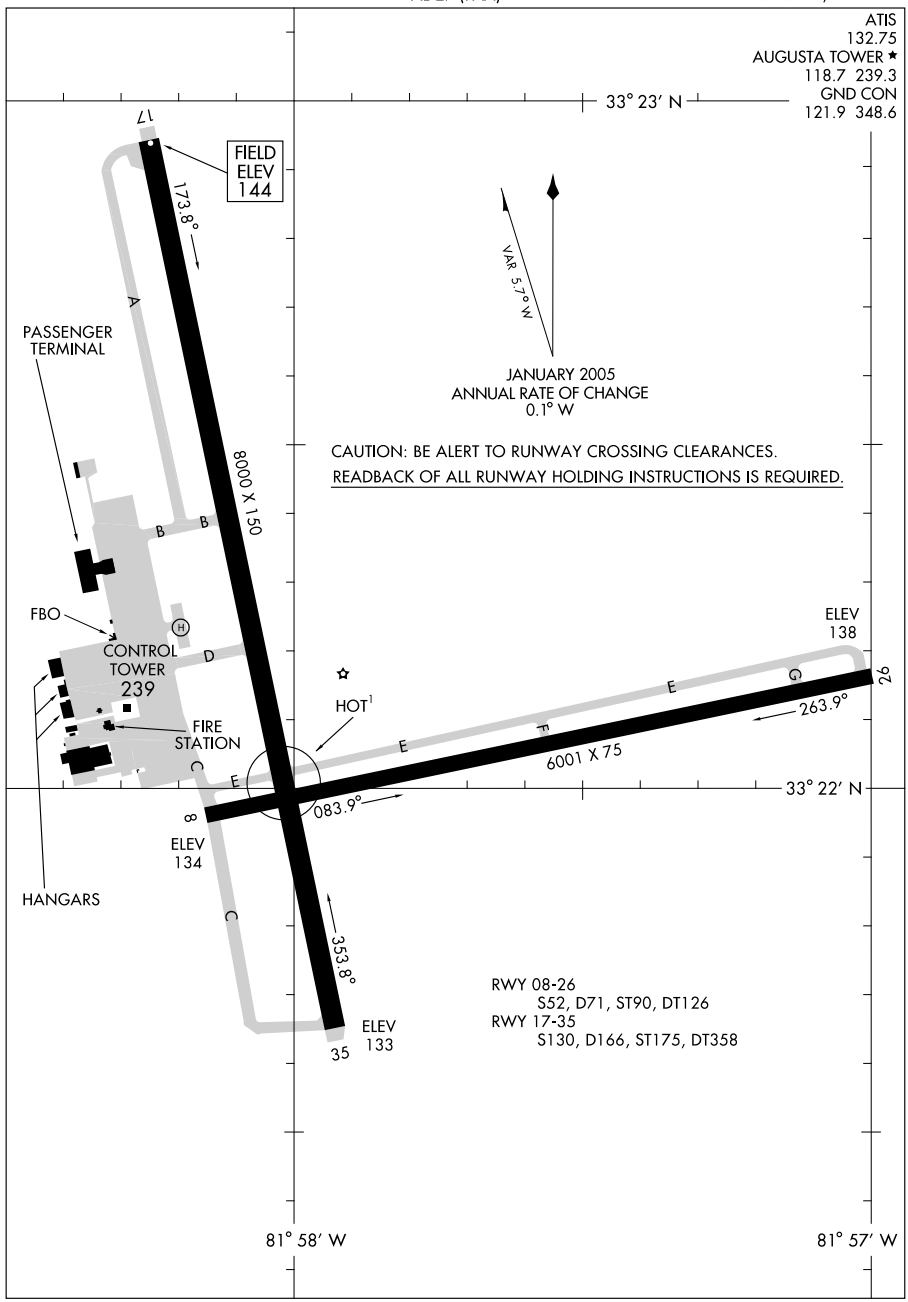
ATLANTA, GEORGIA
ATLANTA/ HARTSFIELD - JACKSON ATLANTA INTL (ATL)

09071

AIRPORT DIAGRAM

AUGUSTA RGNL AT BUSH FIELD (AGS)
AUGUSTA, GEORGIA

AL-27 (FAA)



AIRPORT DIAGRAM

09071

AUGUSTA, GEORGIA
AUGUSTA RGNL AT BUSH FIELD (AGS)

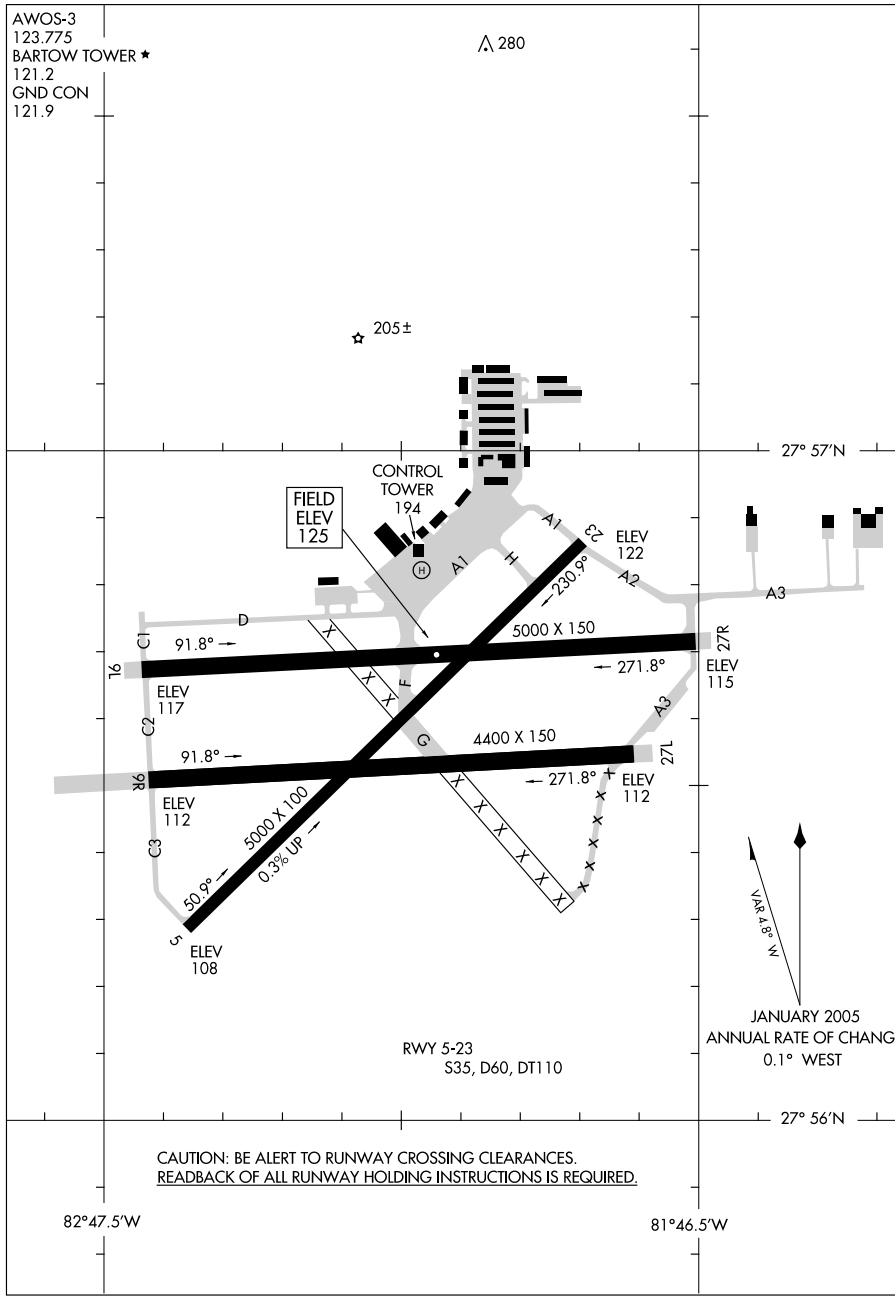
09071

AIRPORT DIAGRAM

AL-5838 (FAA)

BARTOW MUNI (BOW)

BARTOW, FLORIDA



AIRPORT DIAGRAM

BARTOW MUNI (BOW)

BARTOW, FLORIDA

09071

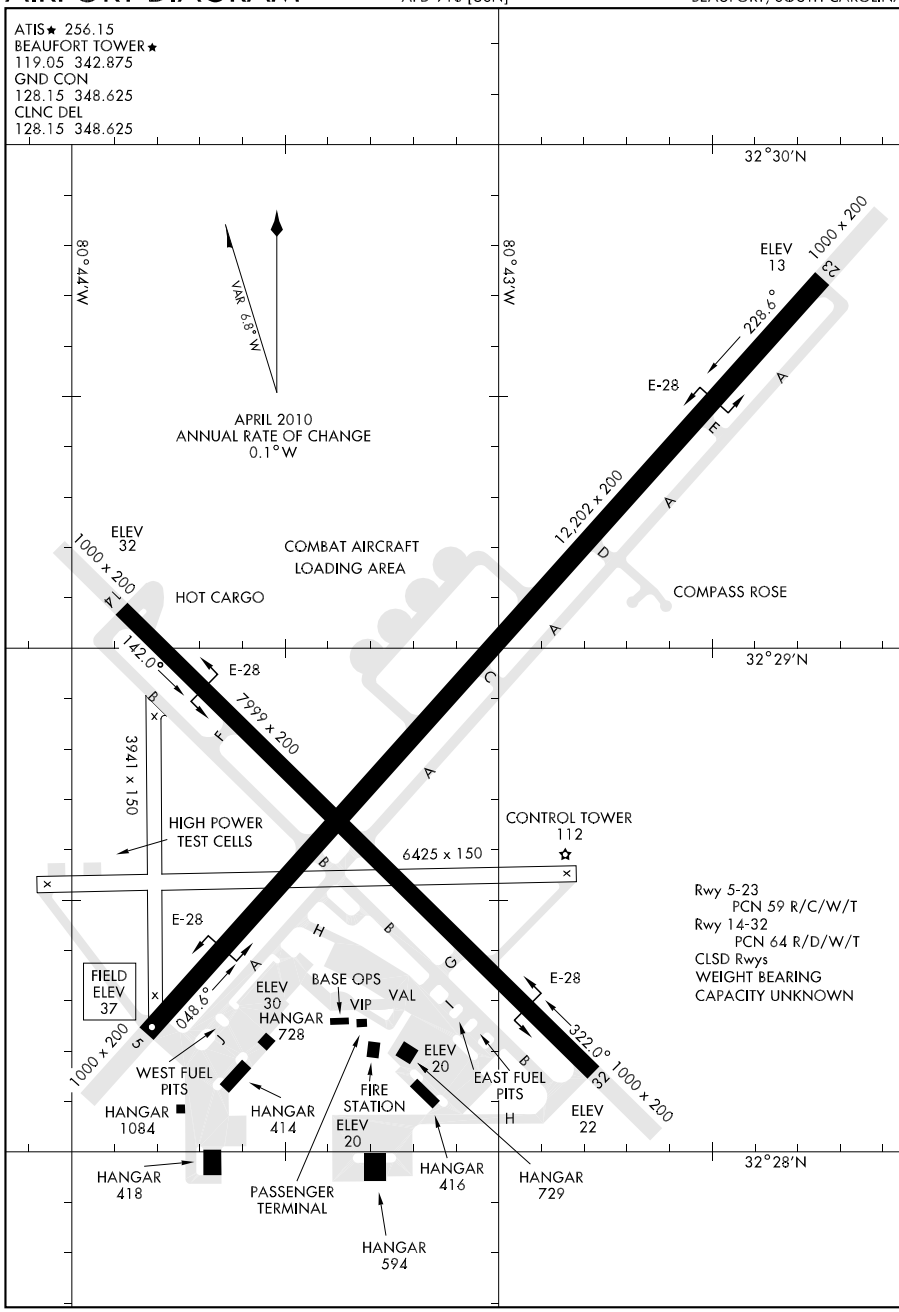
10098

AIRPORT DIAGRAM

BEAUFORT MCAS (MERRITT FIELD) (KNBC)

AFD-916 [USN]

BEAUFORT, SOUTH CAROLINA



AIRPORT DIAGRAM

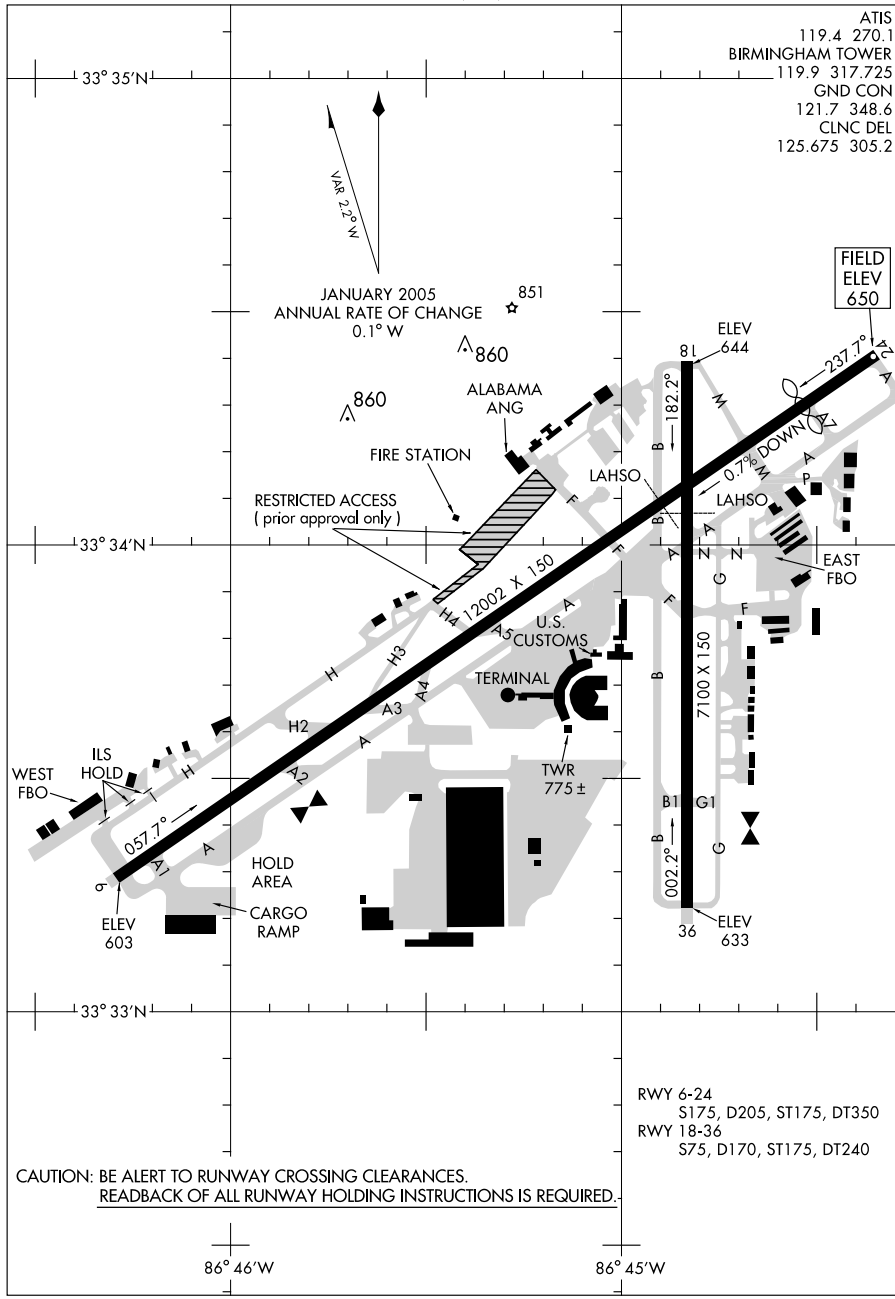
BEAUFORT, SOUTH CAROLINA

BEAUFORT MCAS (MERRITT FIELD) (KNBC)

10098

AIRPORT DIAGRAM

BIRMINGHAM-SHUTTLESWORTH INTL (BHM)
BIRMINGHAM, ALABAMA
AL-50 (FAA)



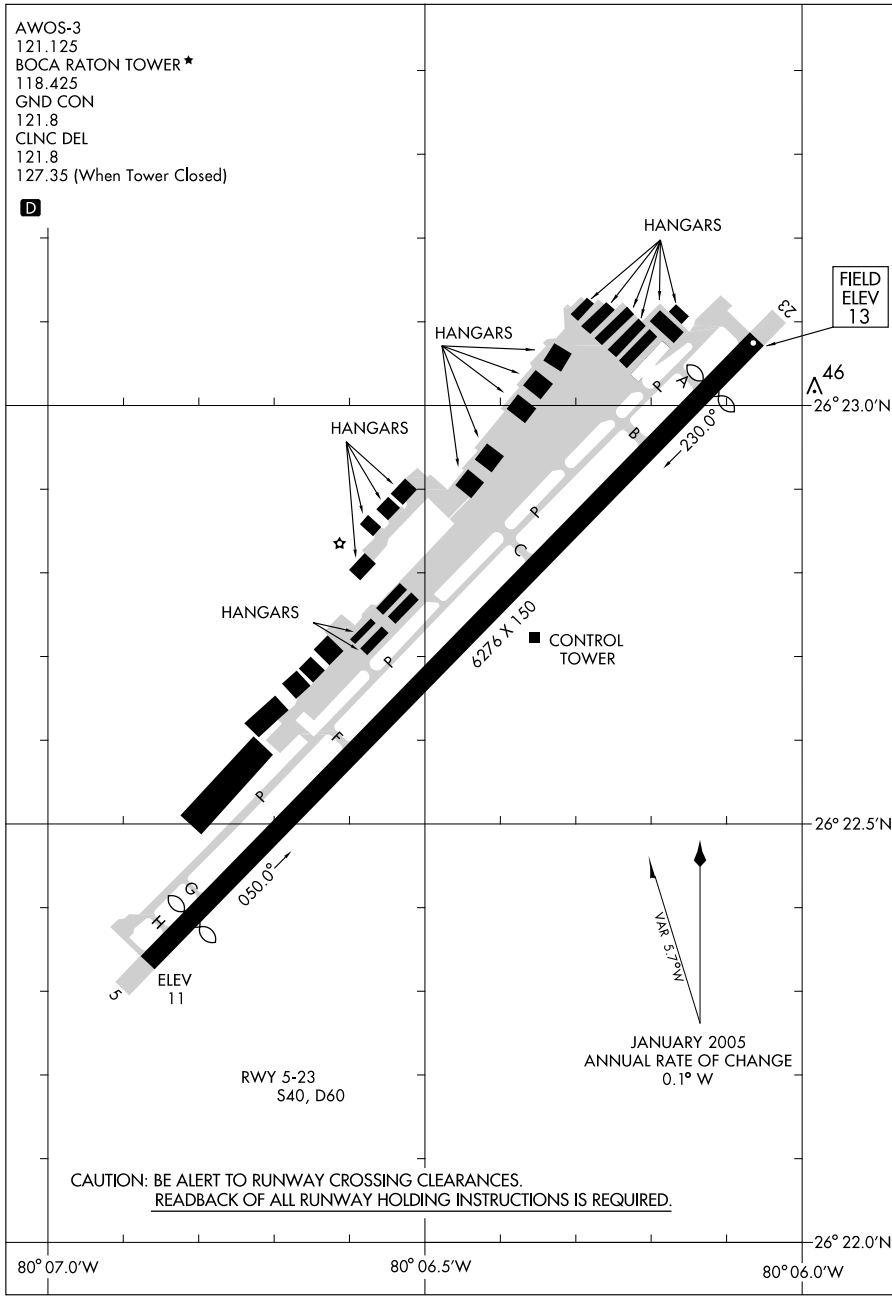
AIRPORT DIAGRAM
10098
BIRMINGHAM, ALABAMA
BIRMINGHAM-SHUTTLESWORTH INTL (BHM)

09183

AIRPORT DIAGRAM

AL-560 (FAA)

BOCA RATON (BCT)
BOCA RATON, FLORIDA



AIRPORT DIAGRAM

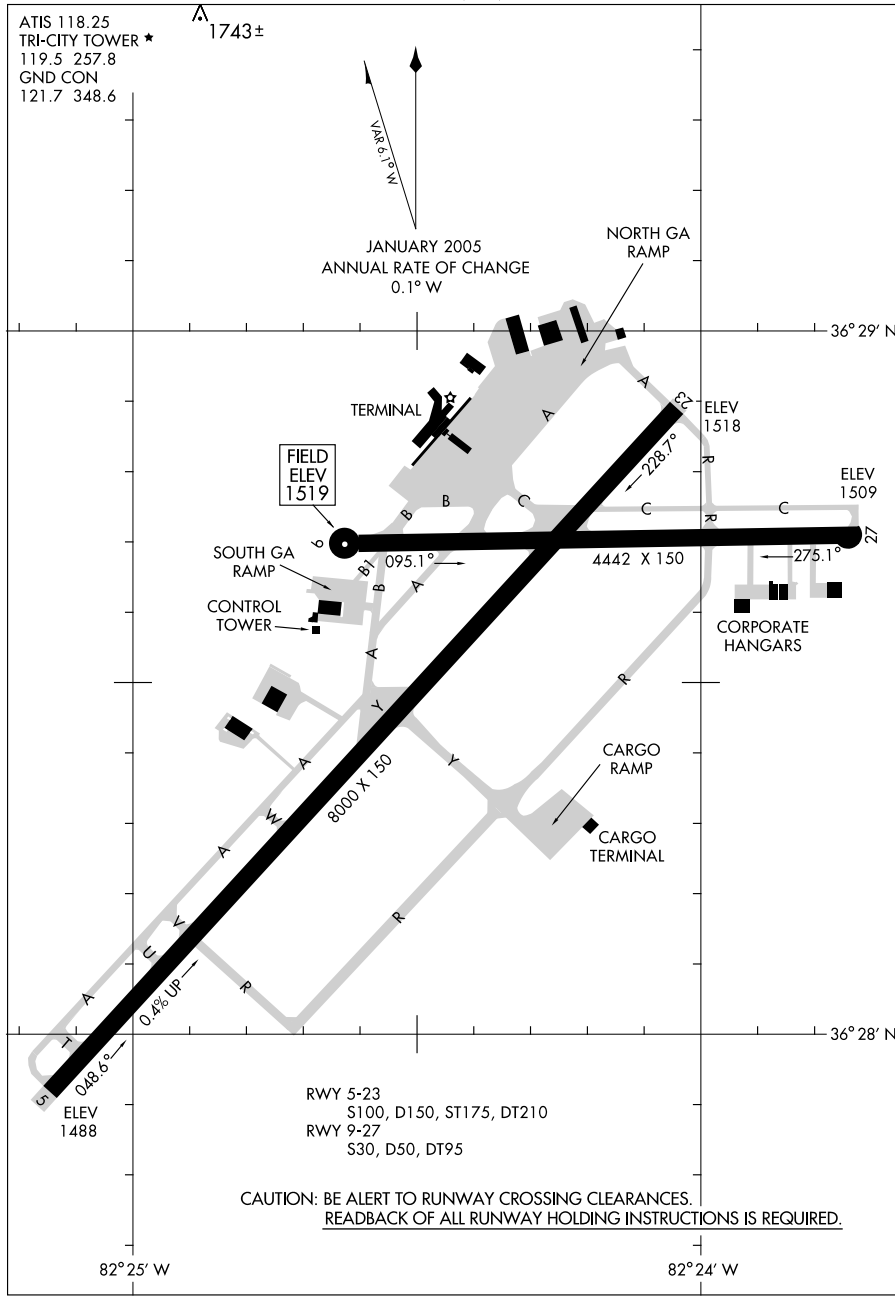
09183

BOCA RATON, FLORIDA
BOCA RATON (BCT)

07298

AIRPORT DIAGRAM

BRISTOL/TRI-CITIES RGNL TN/VA (TRI)
BRISTOL-JOHNSON-KINGSPORT, TENNESSEE



AIRPORT DIAGRAM

07298

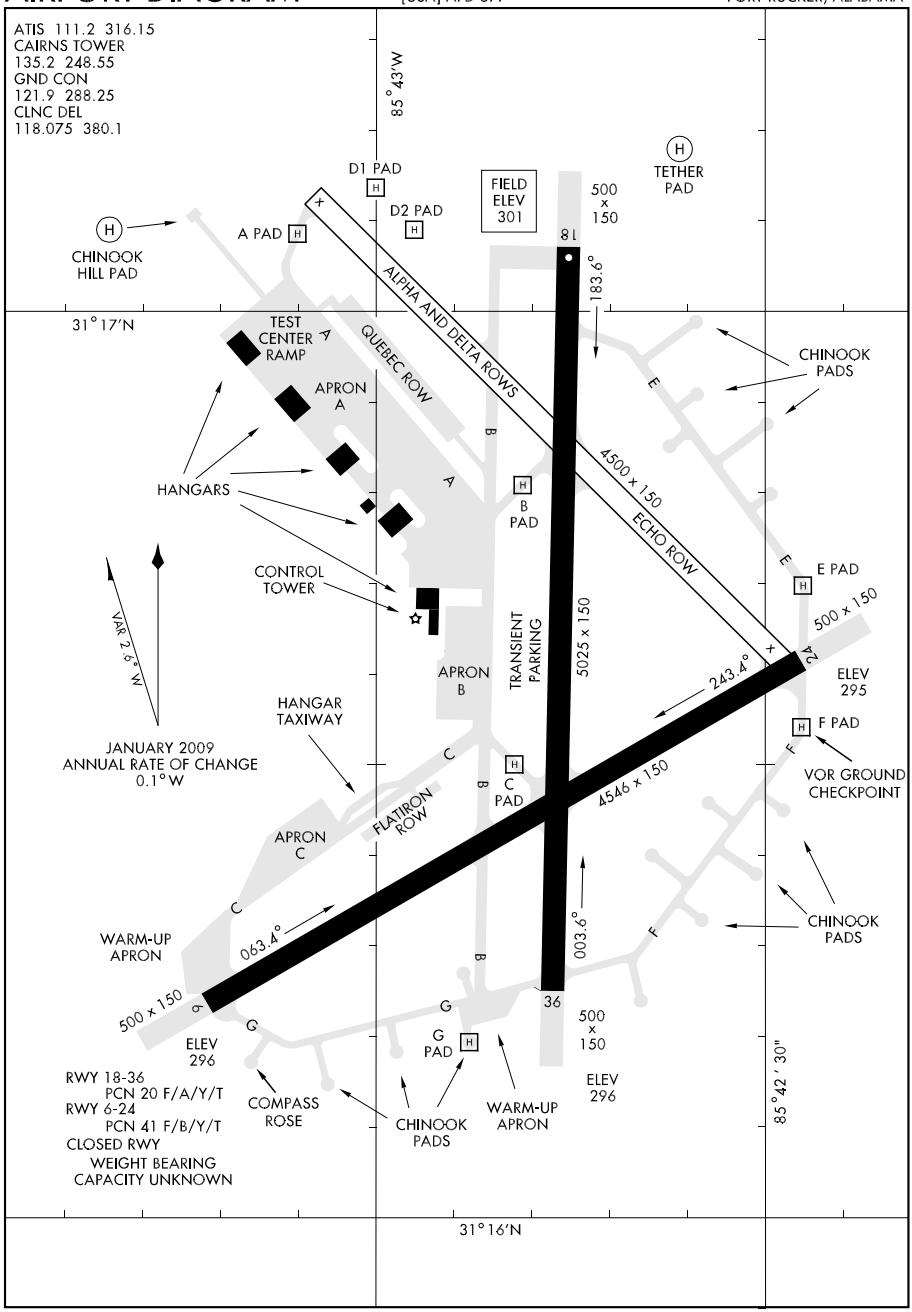
BRISTOL-JOHNSON-KINGSPORT, TENNESSEE
BRISTOL/TRI-CITIES RGNL TN/VA (TRI)

09015

AIRPORT DIAGRAM

[USA] AFD-577

CAIRNS AAF (KOZR)
FORT RUCKER, ALABAMA



AIRPORT DIAGRAM

FORT RUCKER, ALABAMA
CAIRNS AAF (KOZR)

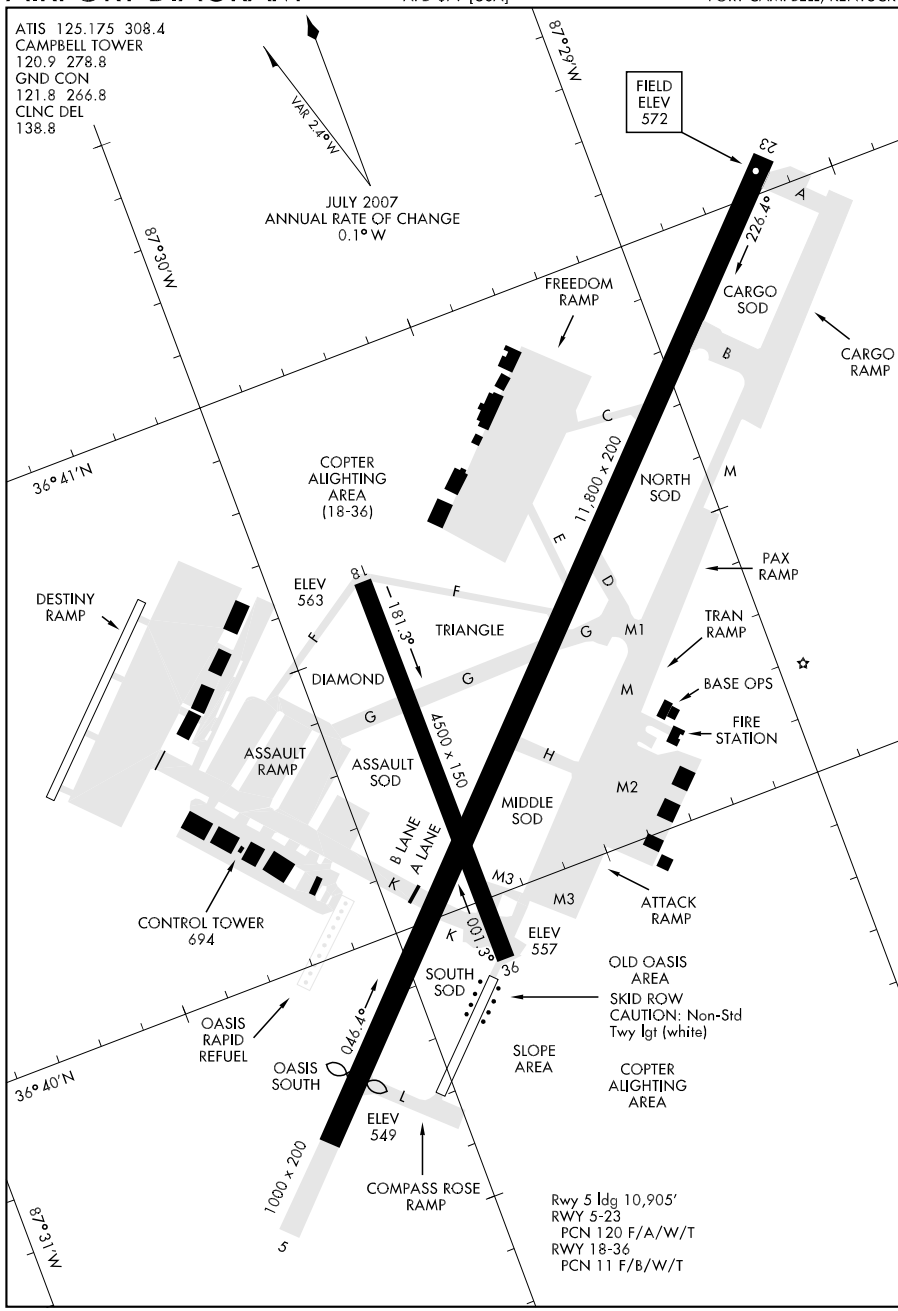
07186

AIRPORT DIAGRAM

AFD-679 [USA]

CAMPBELL AAF (KHOP)

FORT CAMPBELL, KENTUCKY



AIRPORT DIAGRAM

WGS-84 DATUM

FORT CAMPBELL, KENTUCKY

CAMPBELL AAF (KHOP)

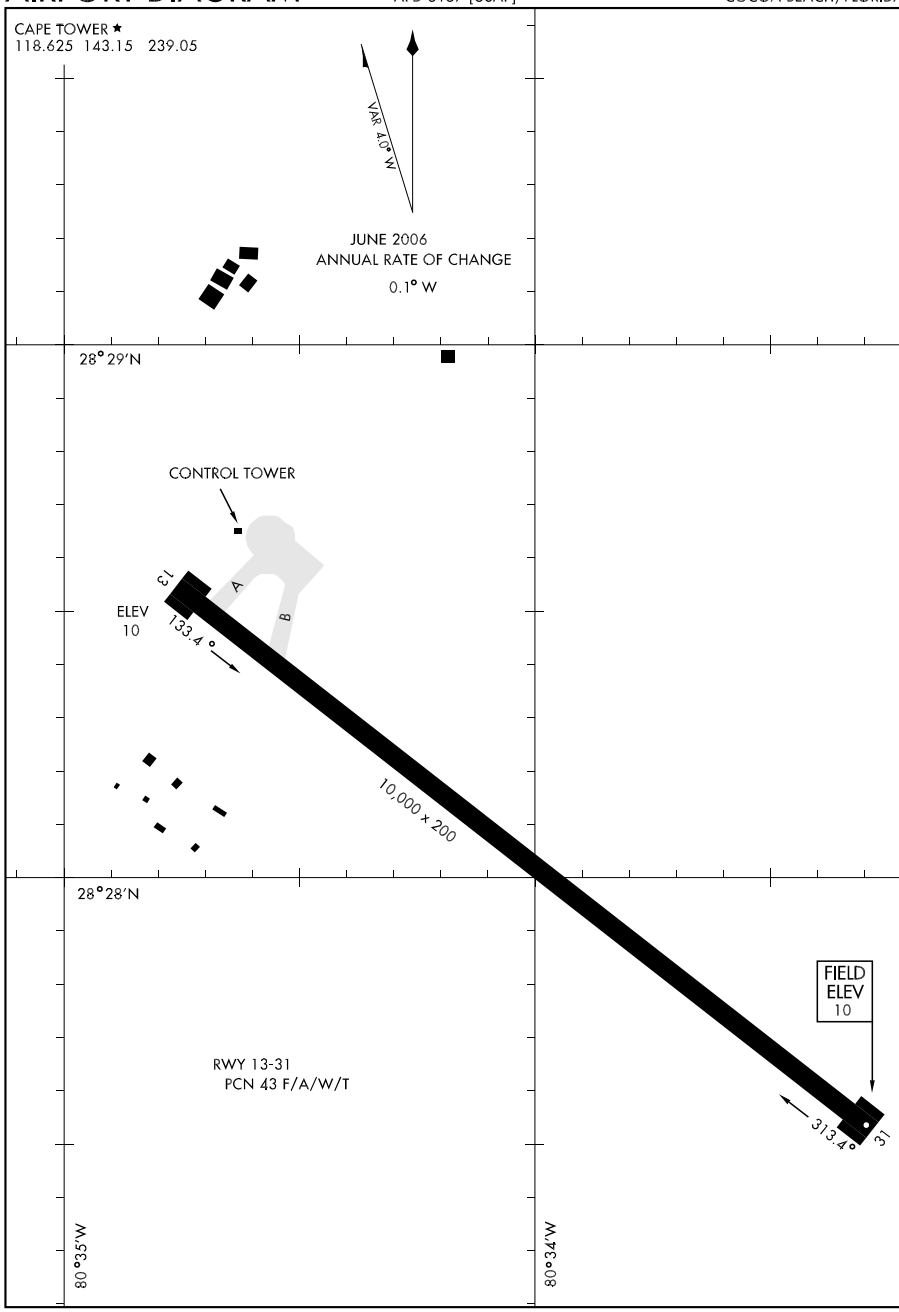
06159

AIRPORT DIAGRAM

CAPE CANAVERAL AFS SKID STRIP (KXMR)

AFD-5157 [USAF]

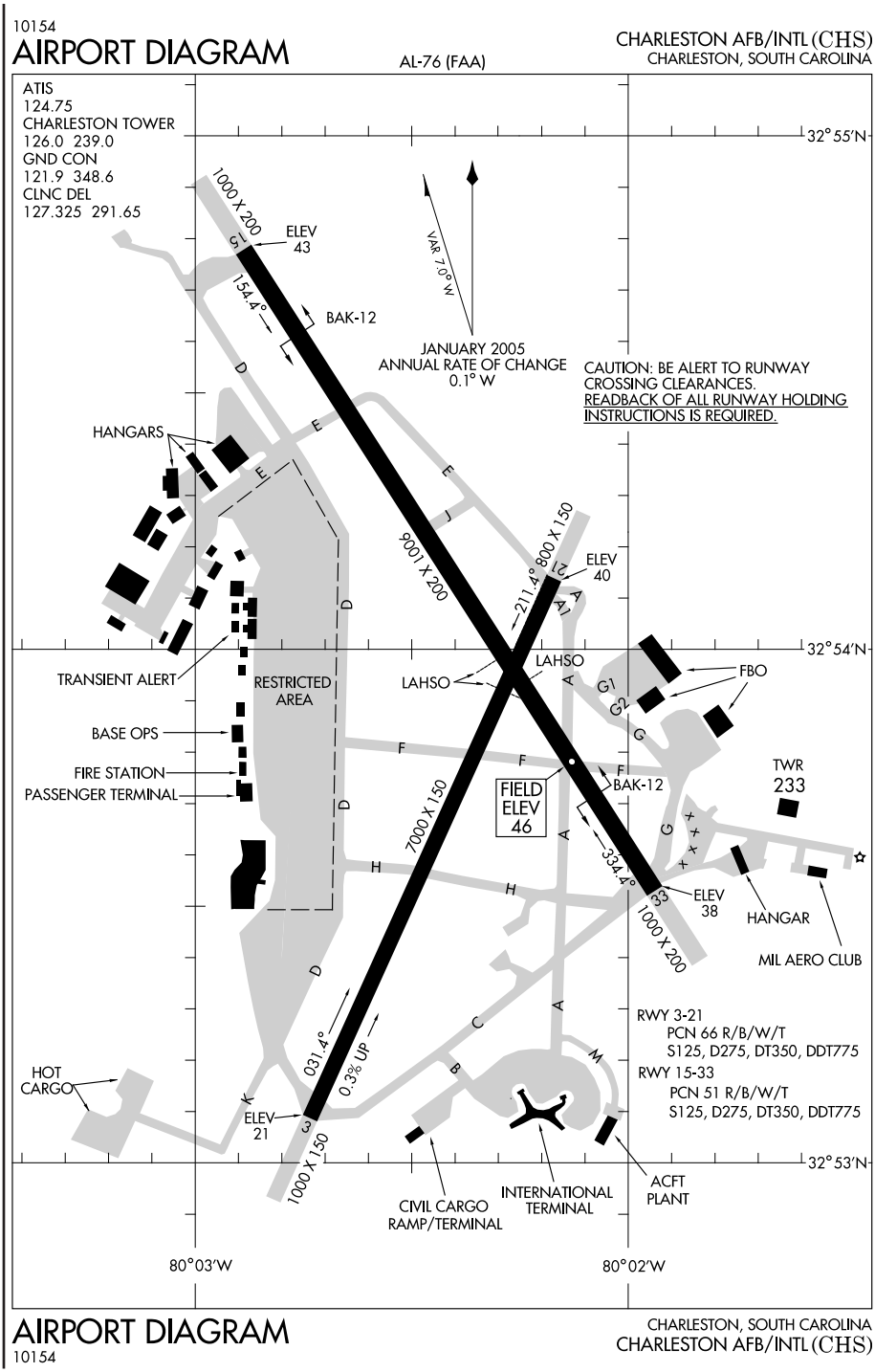
COCOA BEACH, FLORIDA



AIRPORT DIAGRAM

COCOA BEACH, FLORIDA

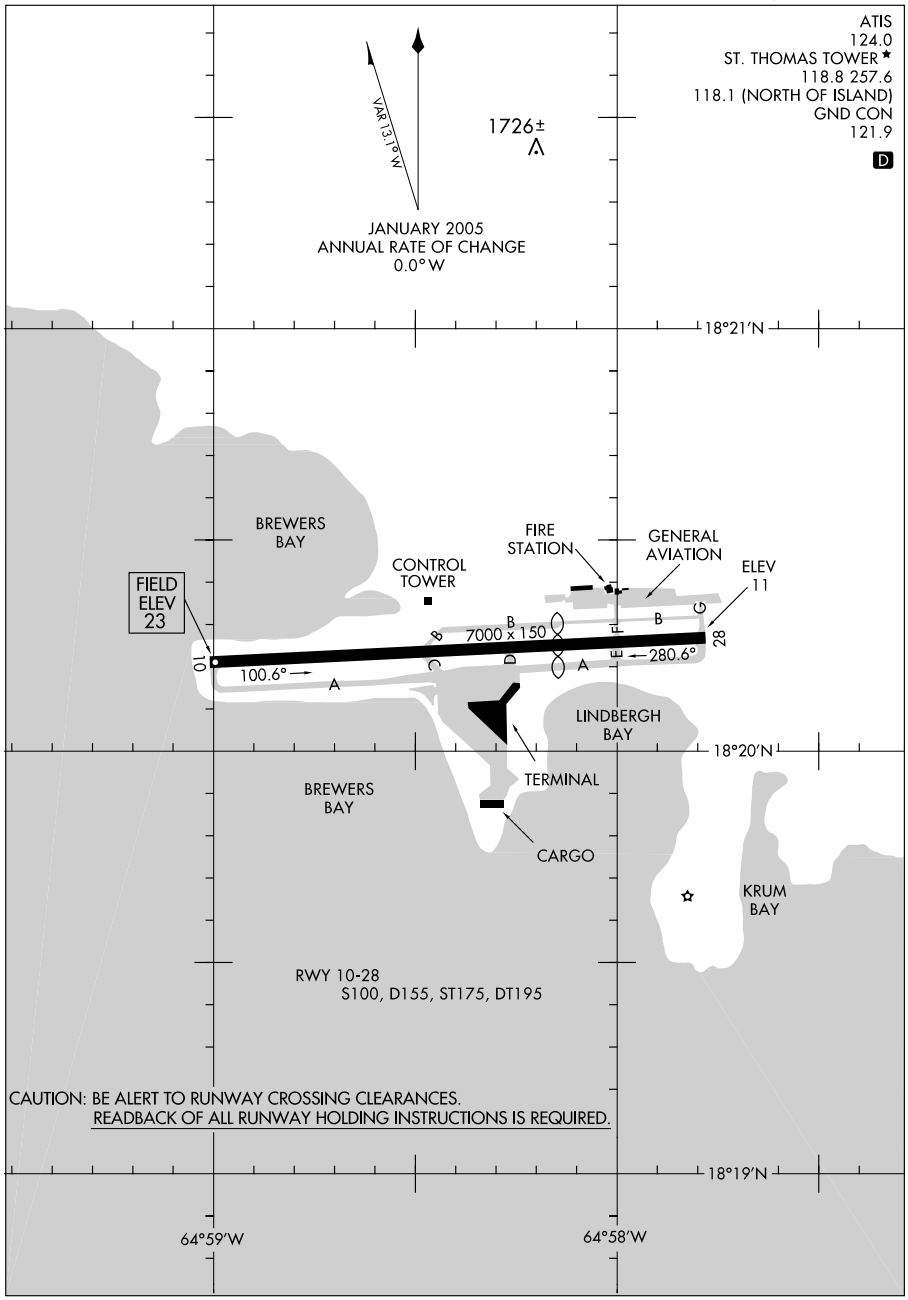
CAPE CANAVERAL AFS SKID STRIP (KXMR)


10154
AIRPORT DIAGRAM
AL-76 (FAA)
CHARLESTON AFB/INTL (CHS)
CHARLESTON, SOUTH CAROLINA
ATIS
124.75
CHARLESTON TOWER
126.0 239.0
GND CON
121.9 348.6
CLNC DEL
127.325 291.65
32° 55'N
1000 X 200
ELEV 43
154.4°
BAK-12
VAR 7.0°W
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1° W
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
HANGARS
9001 X 200
211.4°
800 X 150
ELEV 40
32° 54'N
TRANSIENT ALERT
RESTRICTED AREA
LAHSO
LAHSO
FBO
BASE OPS
FIRE STATION
PASSENGER TERMINAL
FIELD ELEV 46
7000 X 150
BAK-12
TWR 233
334.4°
ELEV 38
HANGAR
MIL AERO CLUB
1000 X 200
RWY 3-21
PCN 66 R/B/W/T
S125, D275, DT350, DDT775
RWY 15-33
PCN 51 R/B/W/T
S125, D275, DT350, DDT775
031.4°
0.3% UP
HOT CARGO
ELEV 21
1000 X 150
32° 53'N
CIVIL CARGO RAMP/TERMINAL
INTERNATIONAL TERMINAL
ACFT PLANT
80°03'W
80°02'W
AIRPORT DIAGRAM
10154
CHARLESTON, SOUTH CAROLINA
CHARLESTON AFB/INTL (CHS)

09183

AIRPORT DIAGRAM

CHARLOTTE AMALIE/ CYRIL E KING (STT)(TIST)
AL-5005 (FAA)
ST. THOMAS, VIRGIN ISLANDS



AIRPORT DIAGRAM

09183

ST. THOMAS, VIRGIN ISLANDS
CHARLOTTE AMALIE/ CYRIL E KING (STT)(TIST)

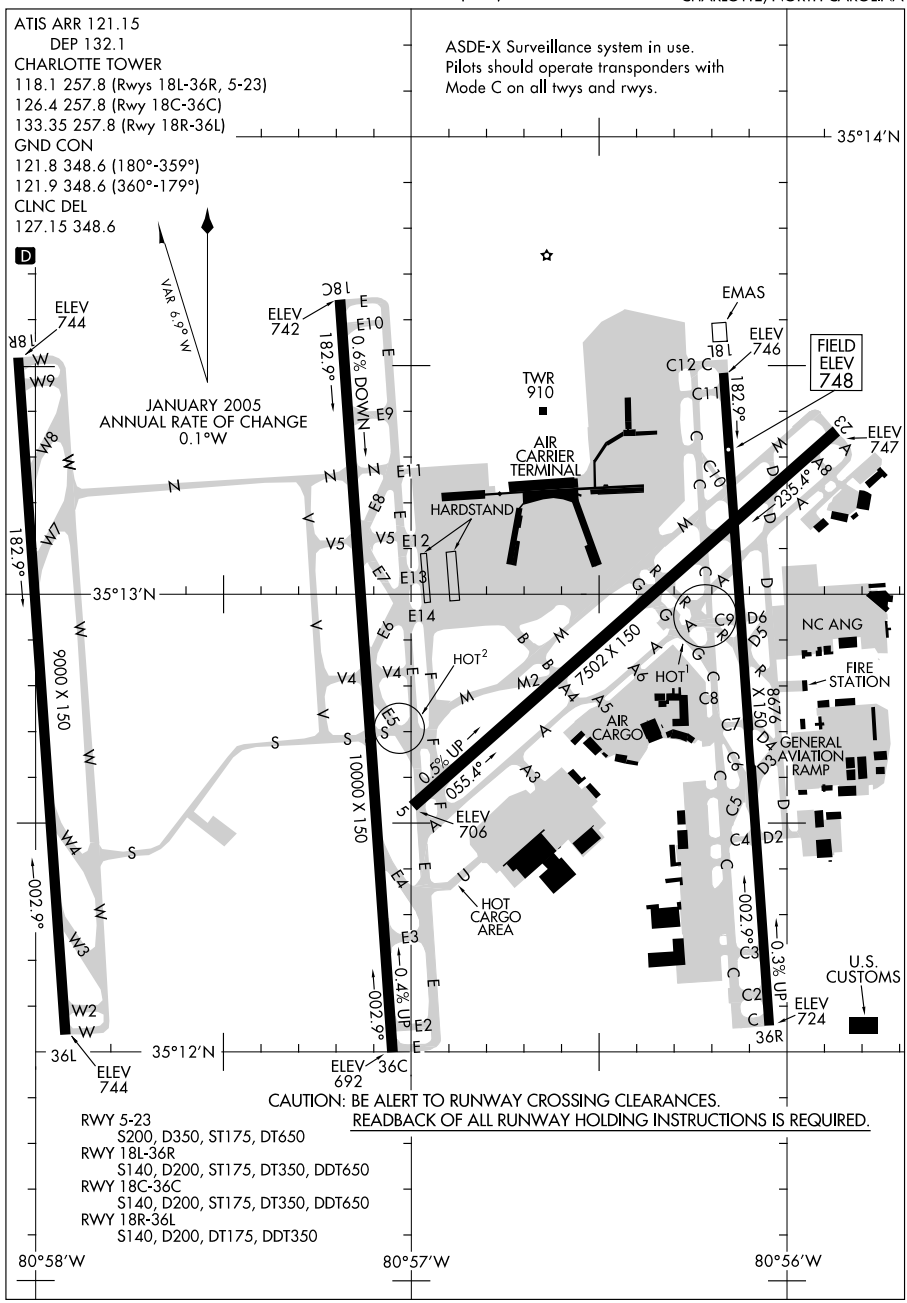
10154

AIRPORT DIAGRAM

AL-78 (FAA)

CHARLOTTE/DOUGLAS INTL (CLT)

CHARLOTTE, NORTH CAROLINA



AIRPORT DIAGRAM

10154

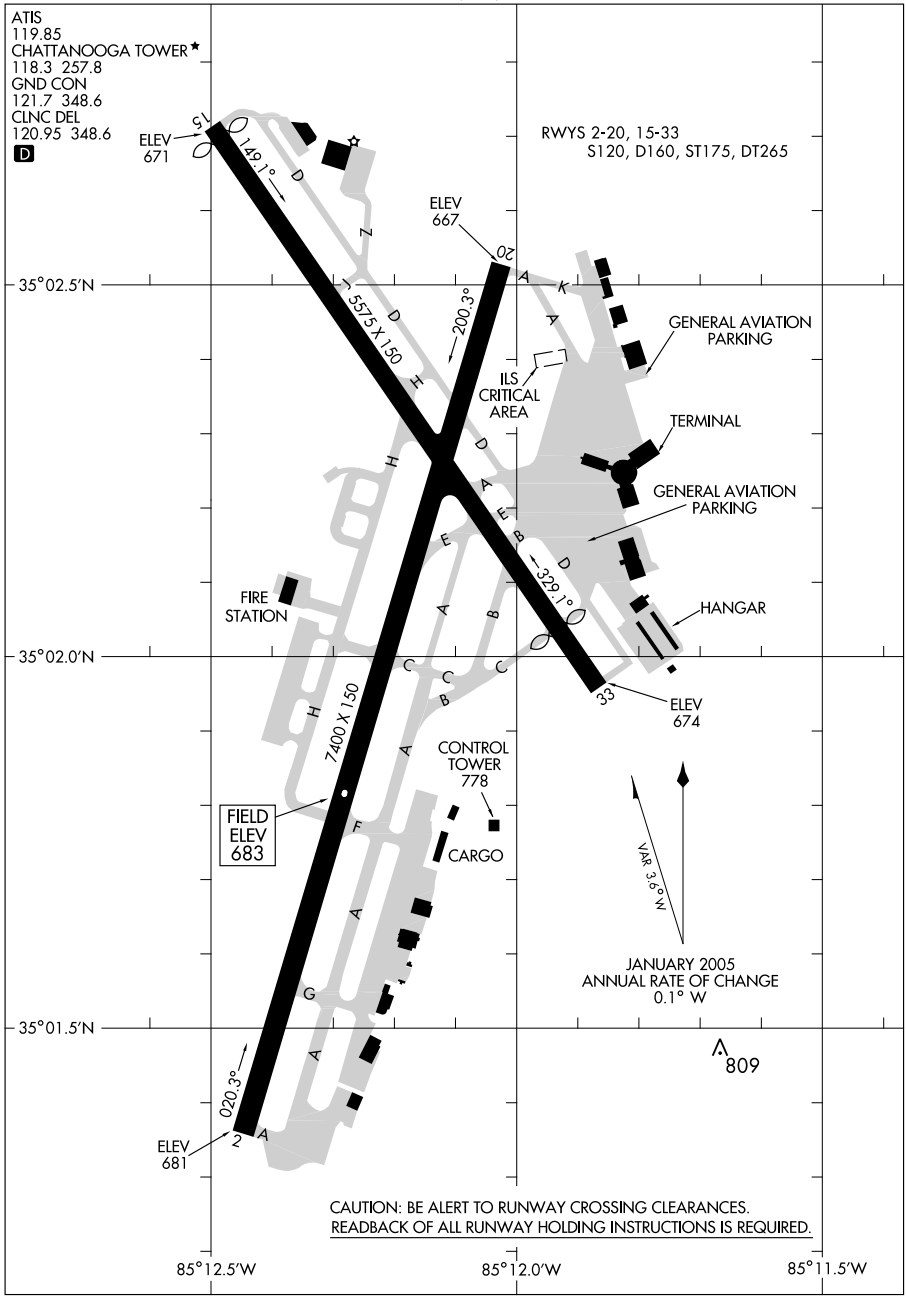
CHARLOTTE, NORTH CAROLINA
CHARLOTTE/DOUGLAS INTL (CLT)

09295

AIRPORT DIAGRAM

AL-79 (FAA)

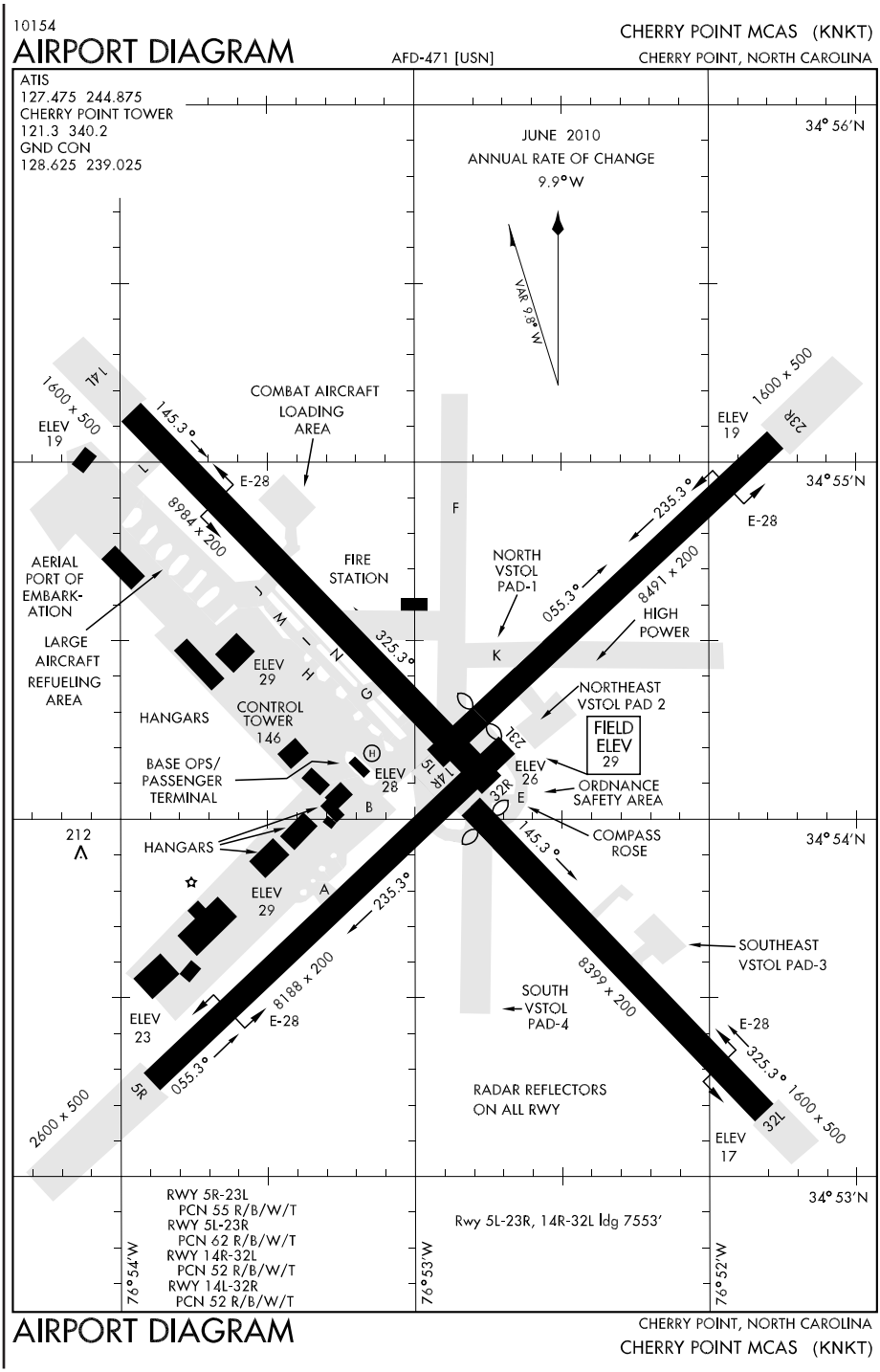
CHATTANOOGA/ LOVELL FIELD (CHA)
CHATTANOOGA, TENNESSEE



AIRPORT DIAGRAM

09295

CHATTANOOGA, TENNESSEE
CHATTANOOGA/ LOVELL FIELD (CHA)

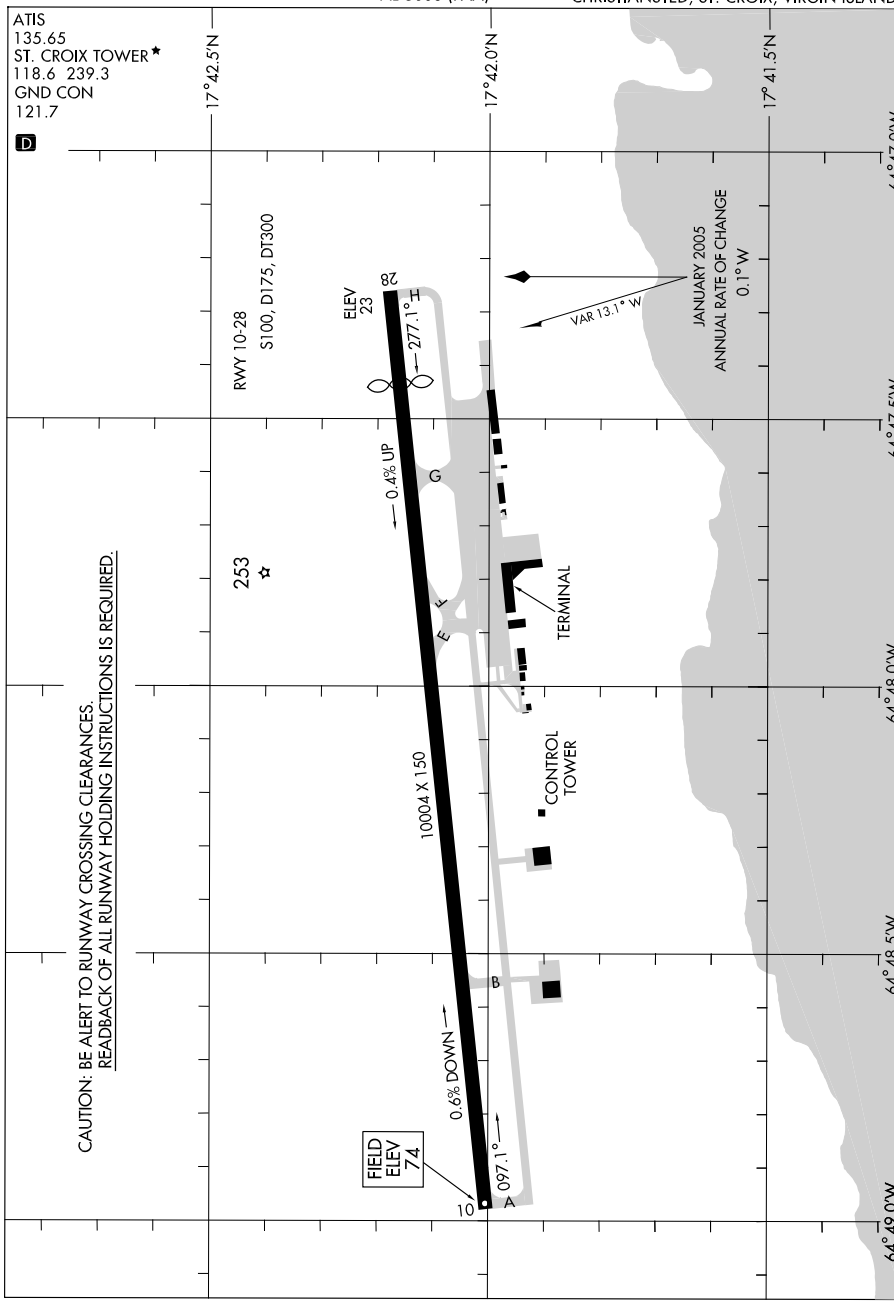

10154
AIRPORT DIAGRAM
AFD-471 [USN]
CHERRY POINT MCAS (KNKT)
CHERRY POINT, NORTH CAROLINA
ATIS
127.475 244.875
CHERRY POINT TOWER
121.3 340.2
GND CON
128.625 239.025
JUNE 2010
ANNUAL RATE OF CHANGE
9.9°W
VAR 9.8°W
34° 56'N
34° 55'N
34° 54'N
34° 53'N
COMBAT AIRCRAFT LOADING AREA
ELEV 19
1600 x 500
14L
23R
145.3°
235.3°
E-28
8984 x 200
8491 x 200
AERIAL PORT OF EMBARK-ATION
LARGE AIRCRAFT REFUELING AREA
FIRE STATION
NORTH VSTOL PAD-1
055.3°
HIGH POWER
NORTHEAST VSTOL PAD 2
ELEV 29
HANGARS
CONTROL TOWER 146
BASE OPS/ PASSENGER TERMINAL
ELEV 28
FIELD ELEV 29
ELEV 26
ORDNANCE SAFETY AREA
23L
14R
32R
32L
COMPASS ROSE
212
HANGARS
ELEV 29
235.3°
8188 x 200
SOUTHEAST VSTOL PAD-3
8399 x 200
SOUTH VSTOL PAD-4
ELEV 23
E-28
055.3°
5R
RADAR REFLECTORS ON ALL RWY
325.3°
1600 x 500
ELEV 17
2600 x 500
RWY 5R-23L
PCN 55 R/B/W/T
RWY 5L-23R
PCN 62 R/B/W/T
RWY 14R-32L
PCN 52 R/B/W/T
RWY 14L-32R
PCN 52 R/B/W/T
Rwy 5L-23R, 14R-32L ldg 7553'
76°54'W
76°53'W
76°52'W
AIRPORT DIAGRAM
CHERRY POINT, NORTH CAROLINA
CHERRY POINT MCAS (KNKT)

09183

AIRPORT DIAGRAM CHRISTIANSTED, ST. CROIX/ HENRY E ROHLSEN (STX)(TISX)

AL-5008 (FAA)

CHRISTIANSTED, ST. CROIX, VIRGIN ISLANDS



CHRISTIANSTED, ST. CROIX, VIRGIN ISLANDS

AIRPORT DIAGRAM CHRISTIANSTED, ST. CROIX/HENRY E ROHLSEN (STX)(TISX)

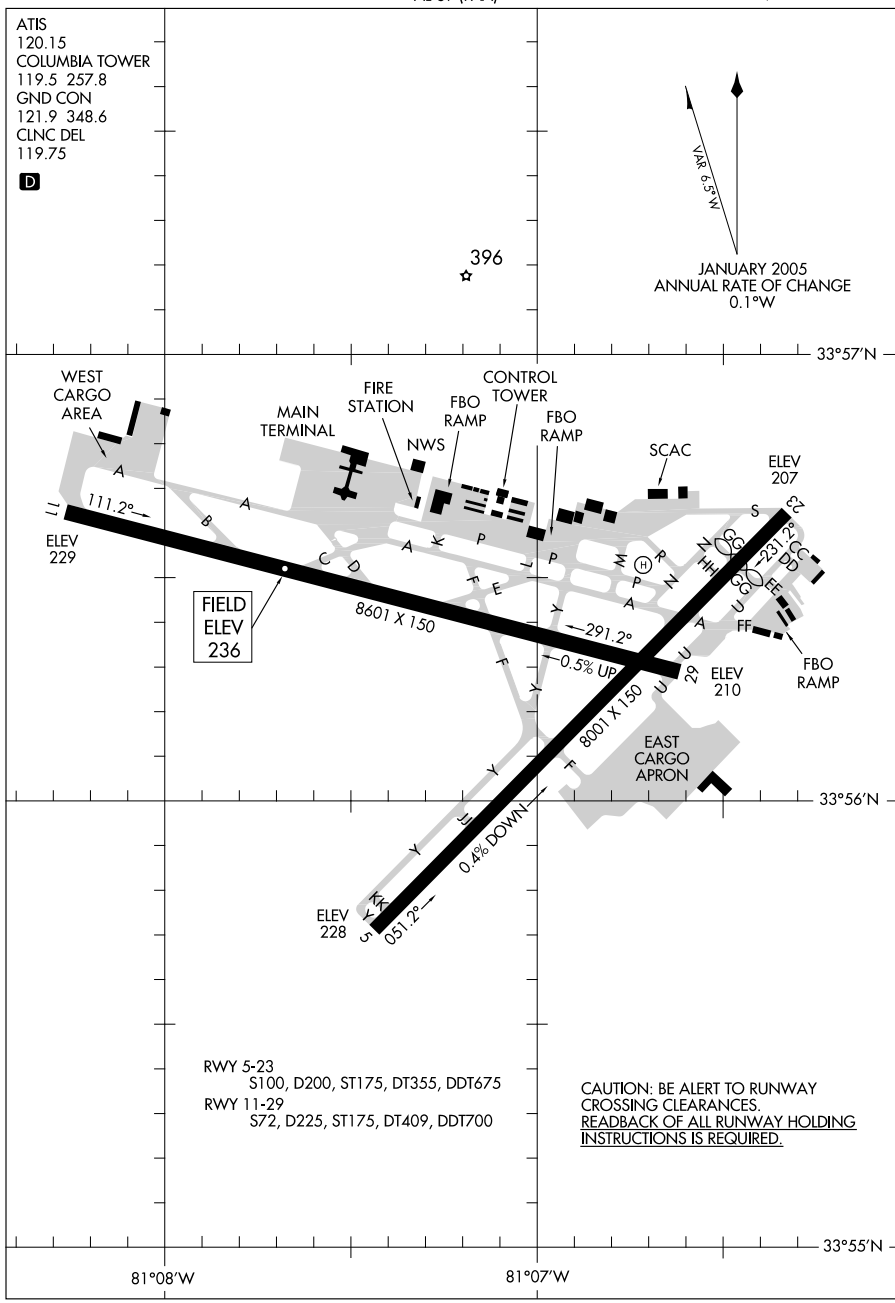
09183

10042

AIRPORT DIAGRAM

AL-89 (FAA)

COLUMBIA METROPOLITAN (CAE)
COLUMBIA, SOUTH CAROLINA

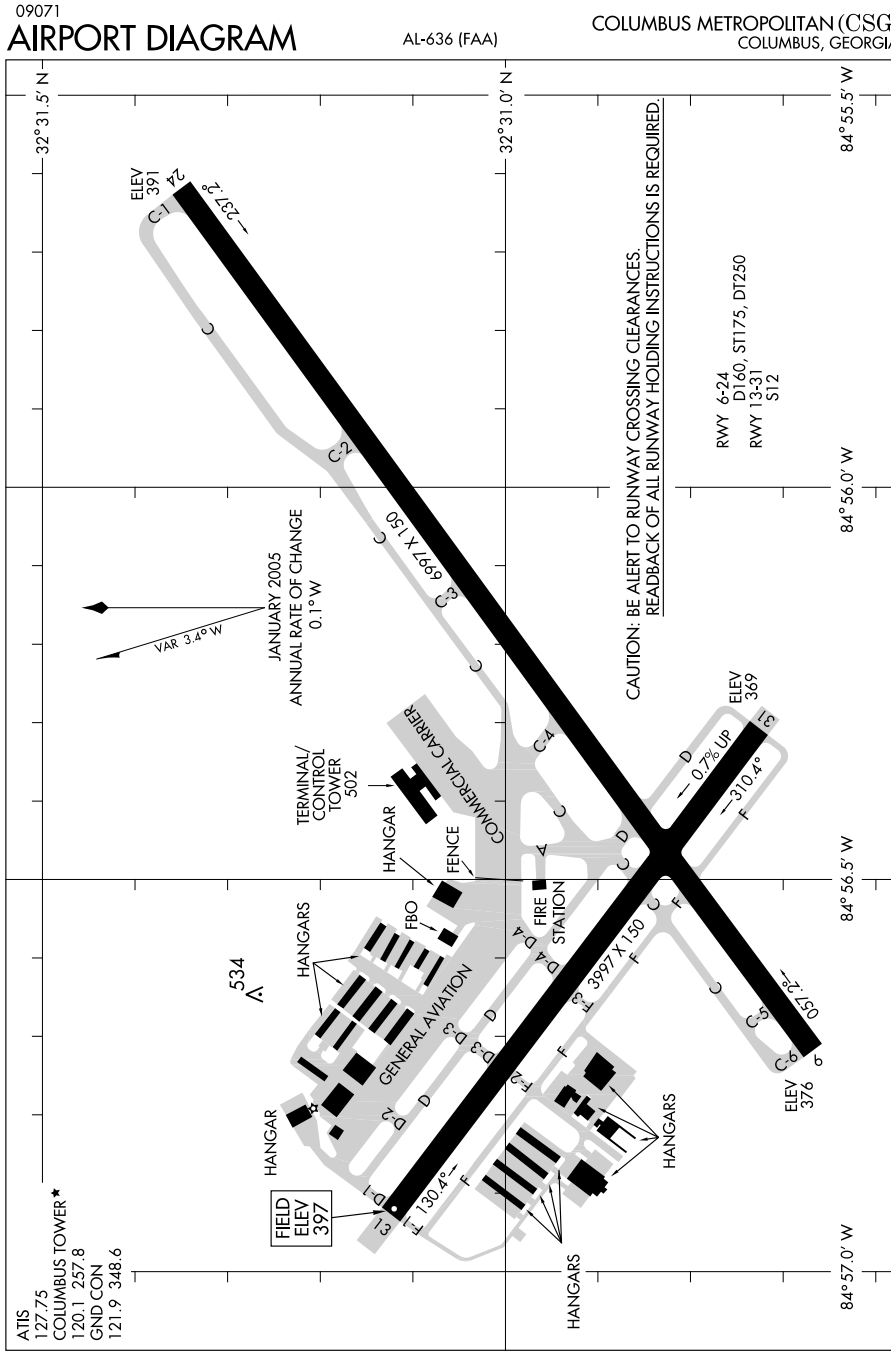


RWY 5-23
S100, D200, ST175, DT355, DDT675
RWY 11-29
S72, D225, ST175, DT409, DDT700

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM
10042

COLUMBIA, SOUTH CAROLINA
COLUMBIA METROPOLITAN (CAE)

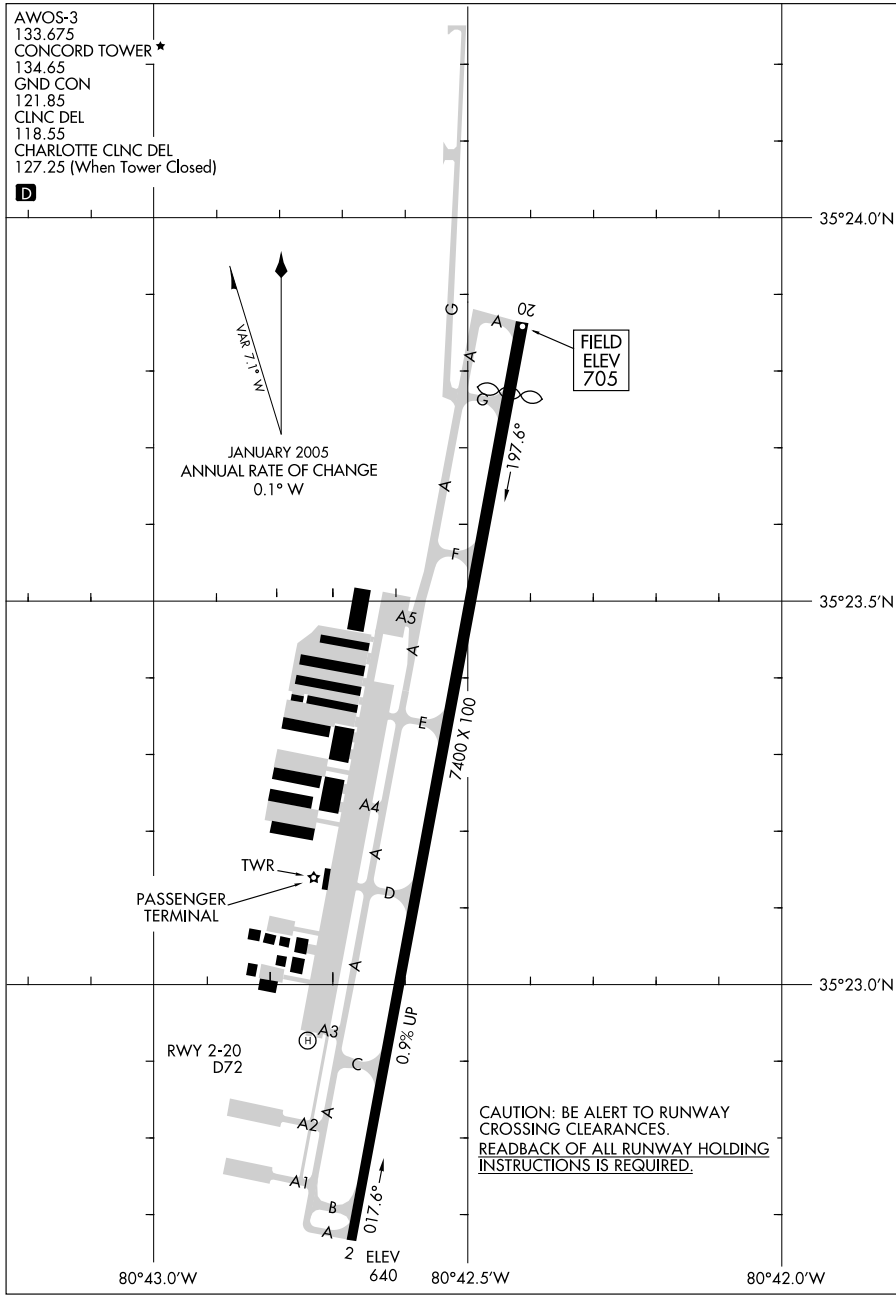

09071
AIRPORT DIAGRAM
AL-636 (FAA)
COLUMBUS METROPOLITAN (CSG)
COLUMBUS, GEORGIA
32° 31.5' N
32° 31.0' N
84° 55.5' W
84° 56.0' W
84° 56.5' W
84° 57.0' W
ELEV 391
24
C-1
C-2
C-3
C-4
C-5
C-6
C
D
F
6997 X 150
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
RWY 6-24
D160, ST175, DT250
RWY 13-31
S12
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1° W
VAR 3.4° W
TERMINAL/
CONTROL
TOWER
502
HANGAR
FENCE
COMMERCIAL CARRIER
ELEV 369
31
0.7% UP
310.4°
FBO
FIRE
STATION
HANGARS
GENERAL AVIATION
534
3997 X 150
057.2°
ELEV 376
9
HANGAR
FIELD
ELEV
397
13
130.4°
HANGARS
HANGARS
ATIS
127.75
COLUMBUS TOWER*
120.1 257.8
GND CON
121.9 348.6
AIRPORT DIAGRAM
09071
COLUMBUS, GEORGIA
COLUMBUS METROPOLITAN (CSG)

09239

AIRPORT DIAGRAM

AL-9155 (FAA)

CONCORD RGNL (JQF)
CONCORD, NORTH CAROLINA



AIRPORT DIAGRAM

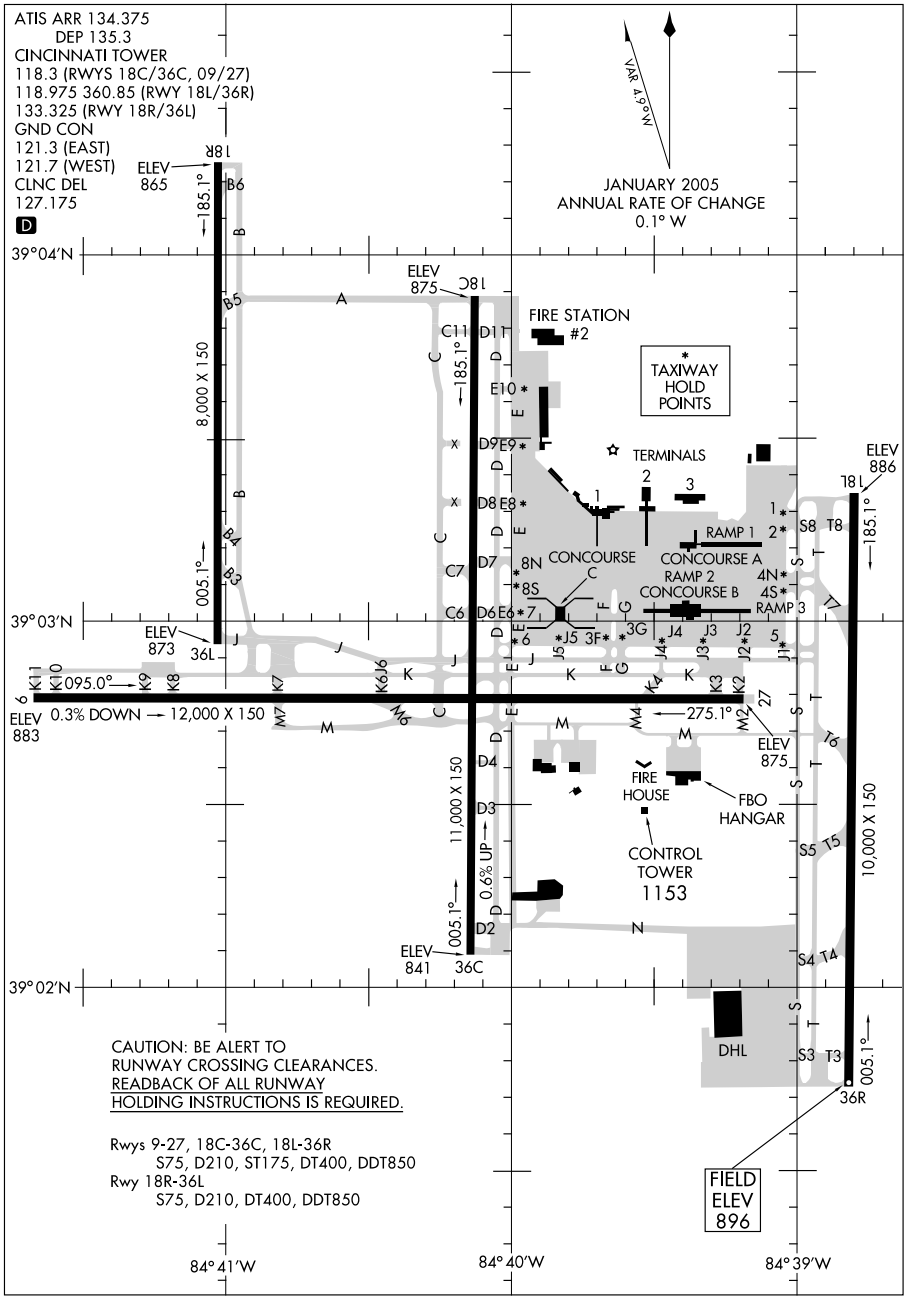
09239

CONCORD, NORTH CAROLINA
CONCORD RGNL (JQF)

08325

AIRPORT DIAGRAM

COVINGTON/ CINCINNATI/NORTHERN KENTUCKY INTL (CVG)
AL-655 (FAA)
COVINGTON, KENTUCKY



AIRPORT DIAGRAM
08325

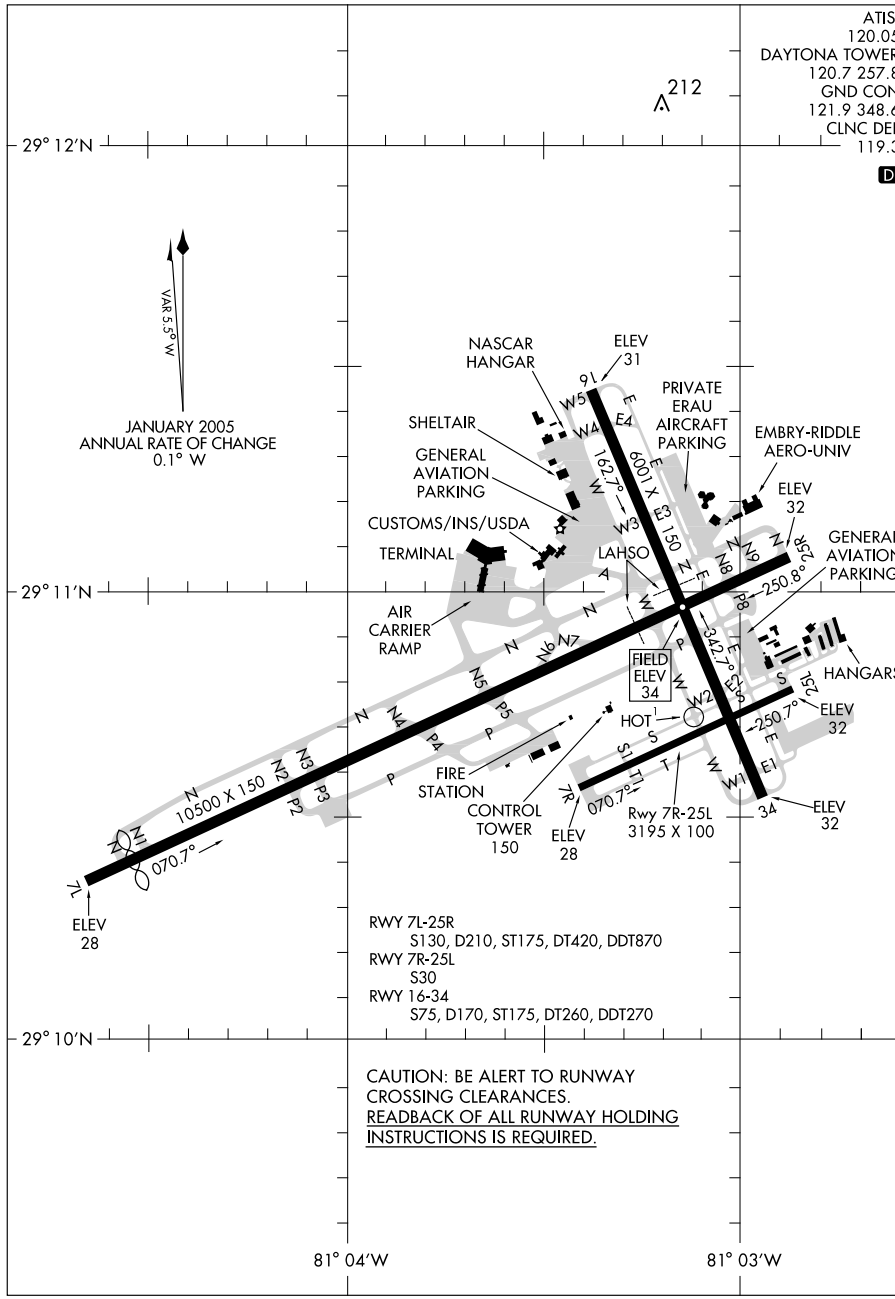
COVINGTON, KENTUCKY
COVINGTON/ CINCINNATI/NORTHERN KENTUCKY INTL (CVG)

09127

AIRPORT DIAGRAM

AL-110 (FAA)

DAYTONA BEACH INTL (DAB)
DAYTONA BEACH, FLORIDA



AIRPORT DIAGRAM

09127

DAYTONA BEACH, FLORIDA
DAYTONA BEACH INTL (DAB)

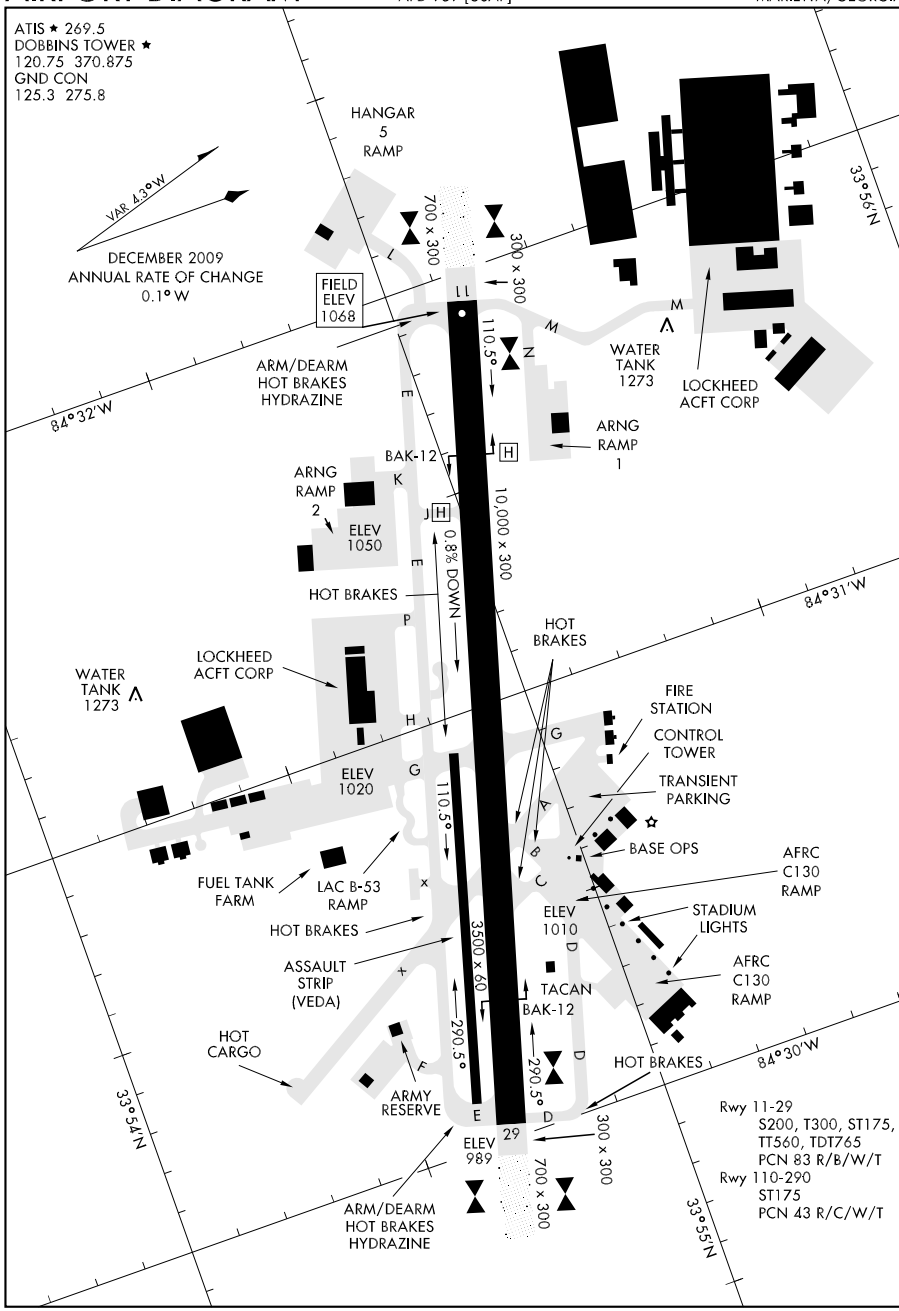
09351

AIRPORT DIAGRAM

DOBBINS ARB (KMGE)

AFD-959 [USAF]

MARIETTA, GEORGIA



AIRPORT DIAGRAM

MARIETTA, GEORGIA

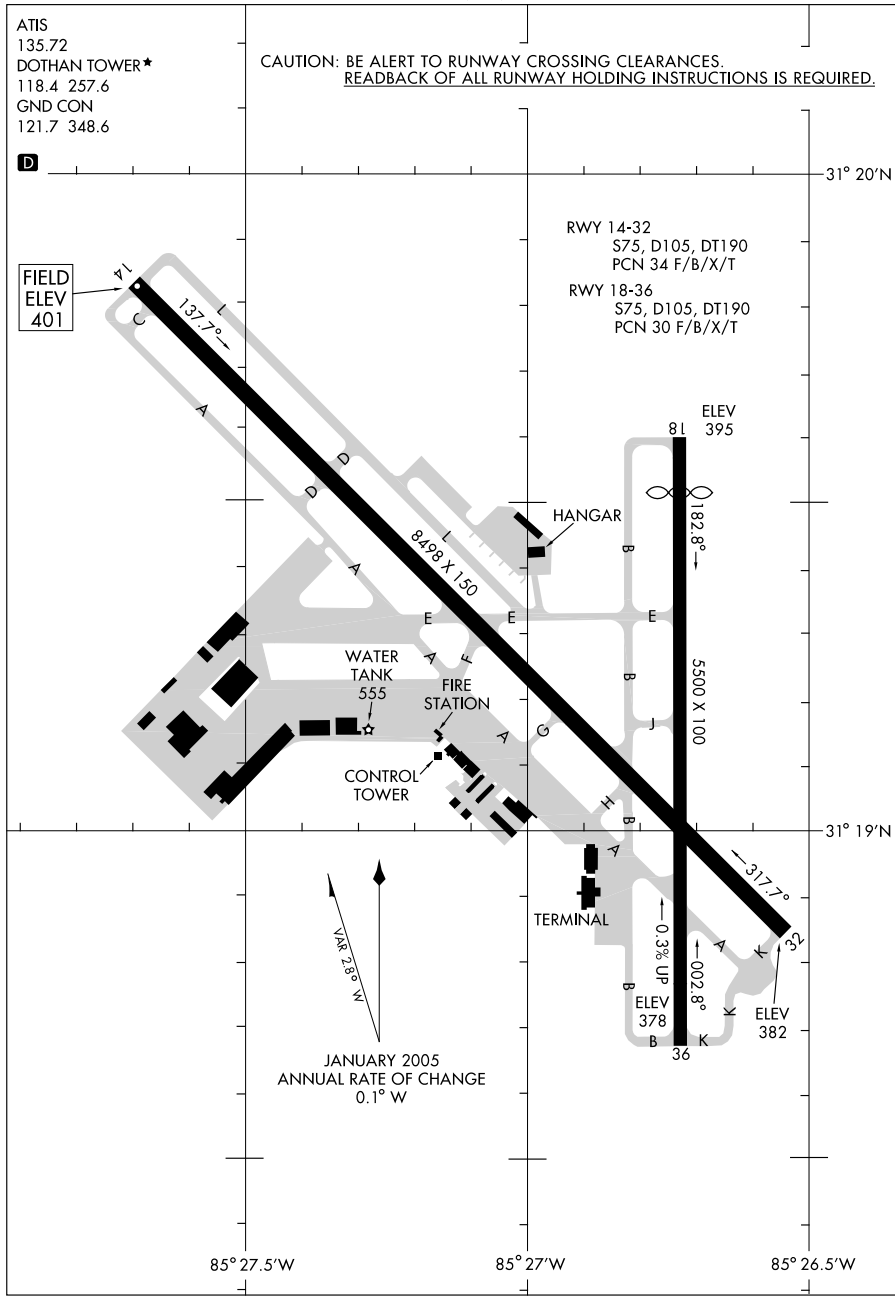
DOBBINS ARB (KMGE)

09295

AIRPORT DIAGRAM

AL-123 (FAA)

DOTHAN RGNL (DHN)
DOTHAN, ALABAMA



AIRPORT DIAGRAM

09295

DOTHAN, ALABAMA
DOTHAN RGNL (DHN)

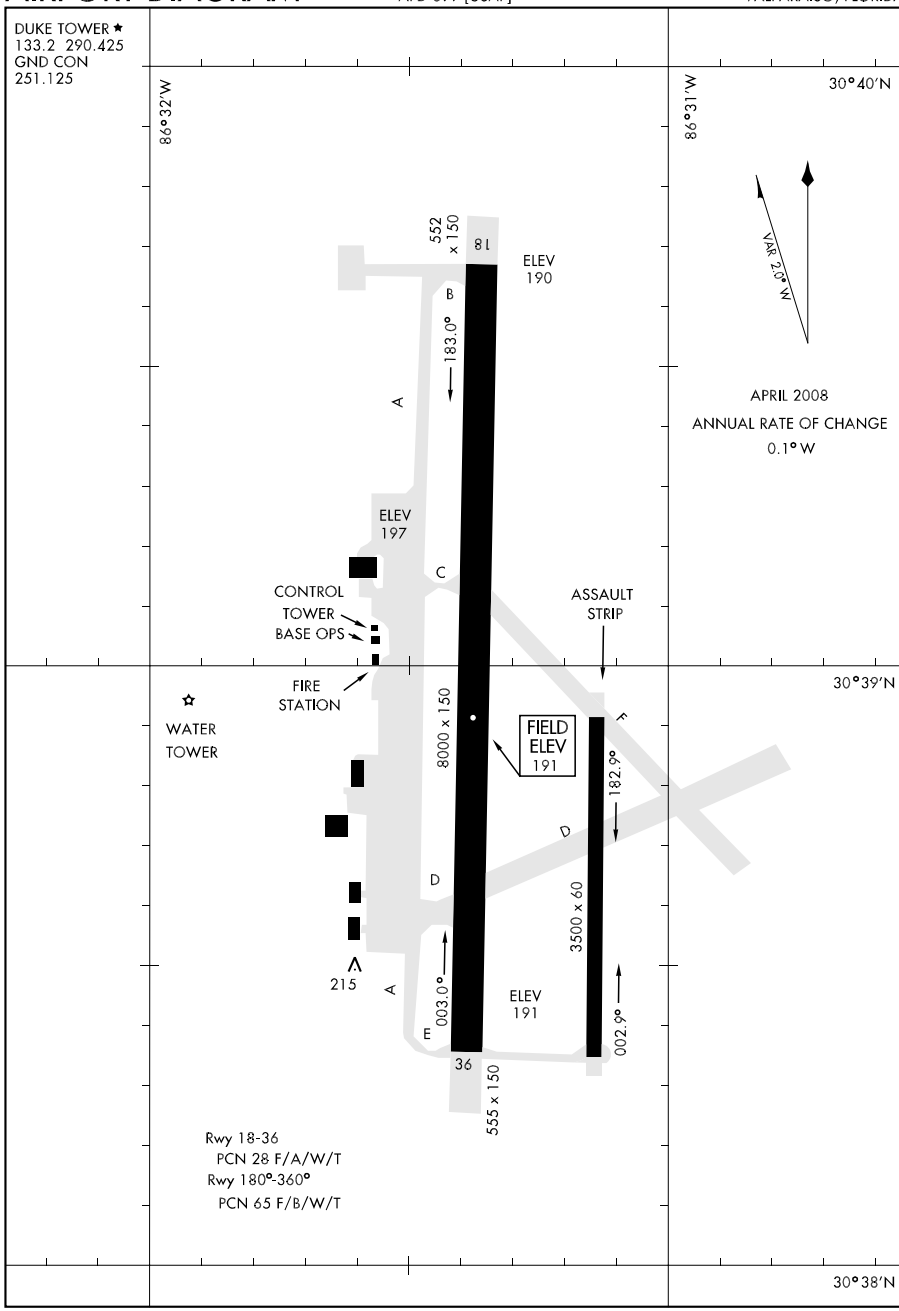
08101

AIRPORT DIAGRAM

DUKE FLD (EGLIN AF AUX NR3) (KEGI)

AFD-699 [USAF]

VALPARAISO, FLORIDA



AIRPORT DIAGRAM

VALPARAISO, FLORIDA

DUKE FLD (EGLIN AF AUX NR3) (KEGI)

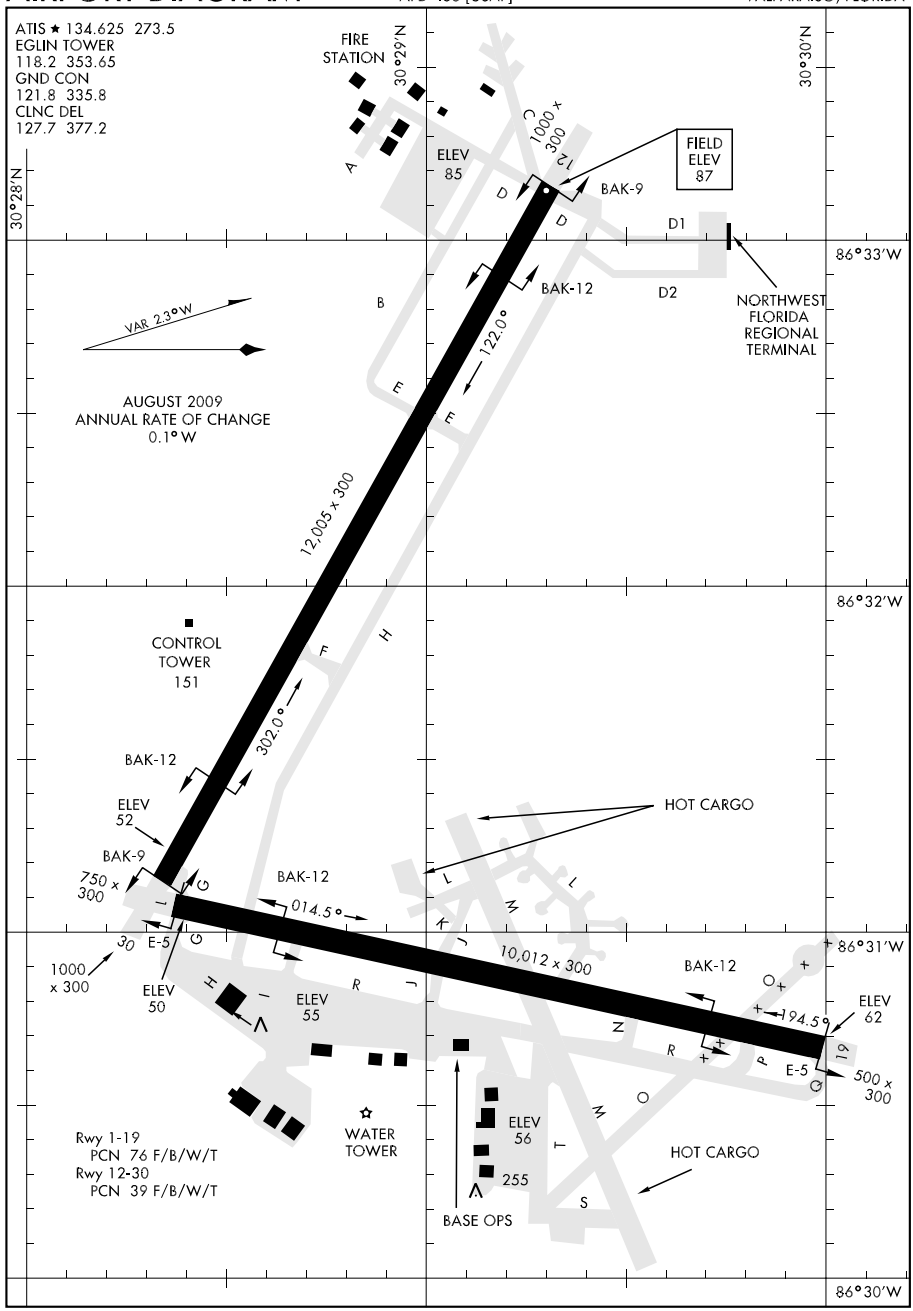
09239

AIRPORT DIAGRAM

EGLIN AFB (KVPS)

AFD-436 [USAF]

VALPARAISO, FLORIDA



AIRPORT DIAGRAM

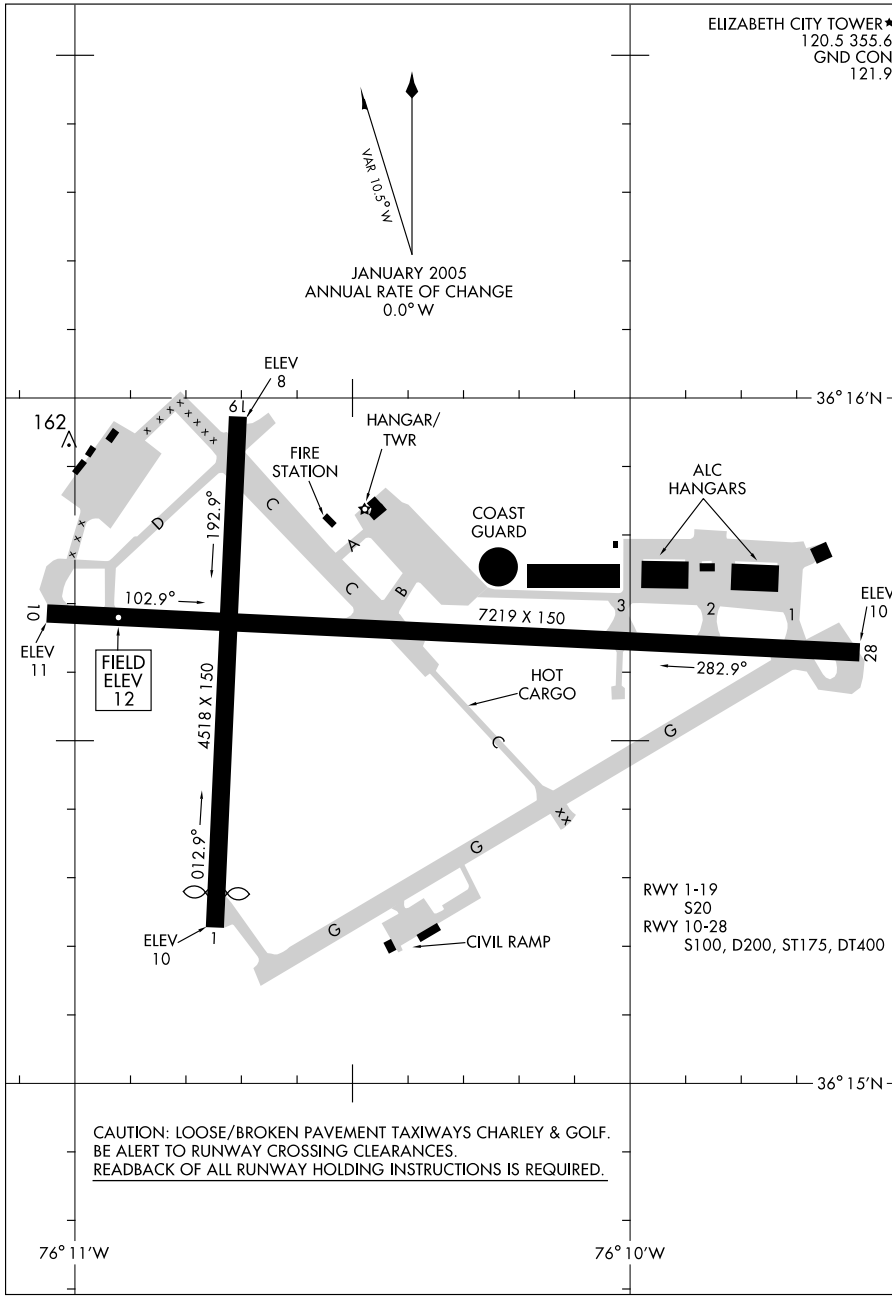
VALPARAISO, FLORIDA

EGLIN AFB (KVPS)

09295

AIRPORT DIAGRAM

ELIZABETH CITY COAST GUARD AIR STATION/RGNL (ECG)
AL-617 (FAA)
ELIZABETH CITY, NORTH CAROLINA



AIRPORT DIAGRAM

09295

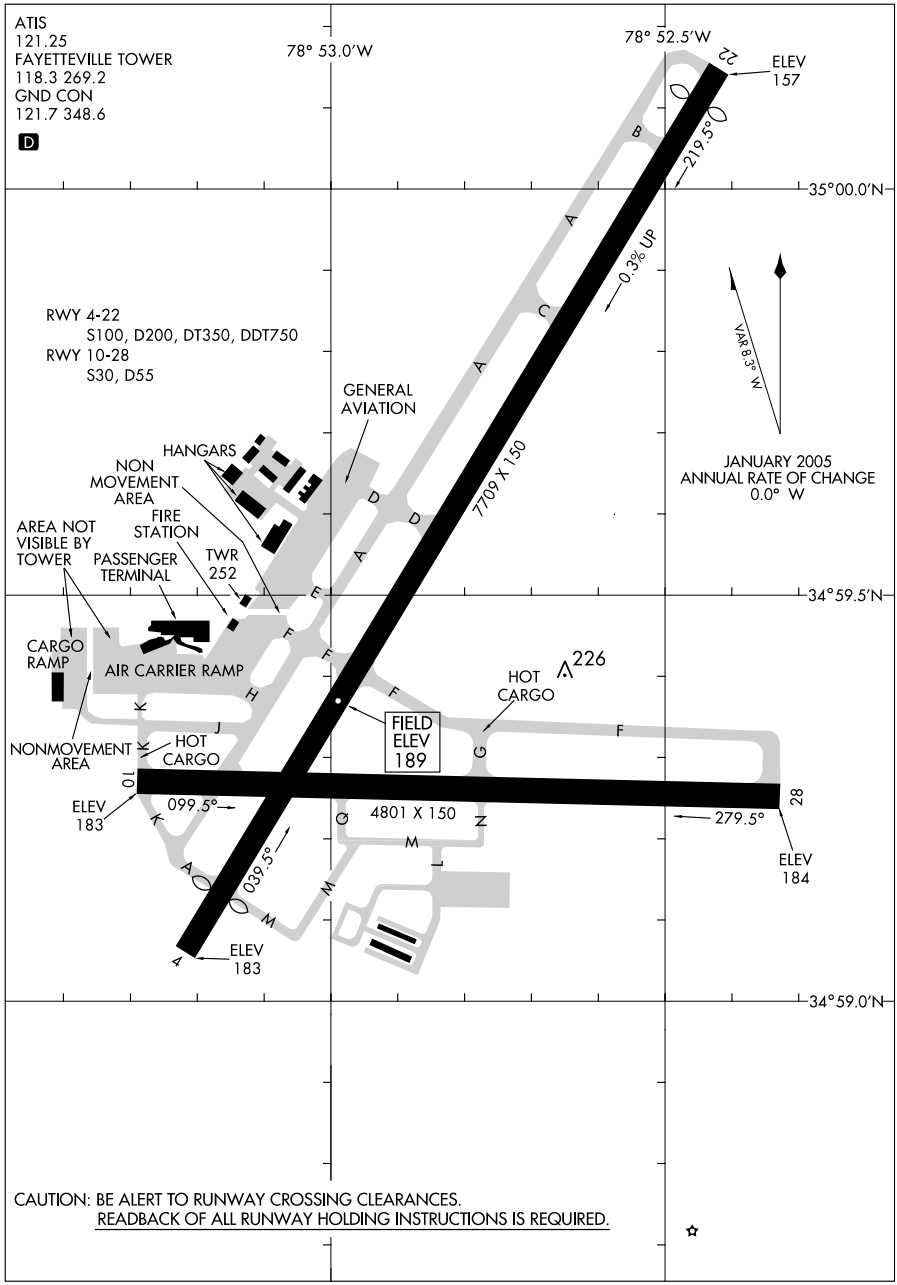
ELIZABETH CITY, NORTH CAROLINA
ELIZABETH CITY COAST GUARD AIR STATION/RGNL (ECG)

09239

AIRPORT DIAGRAM

AL-690 (FAA)

FAYETTEVILLE RGNL/GRANNIS FIELD (FAY)
FAYETTEVILLE, NORTH CAROLINA



AIRPORT DIAGRAM

09239

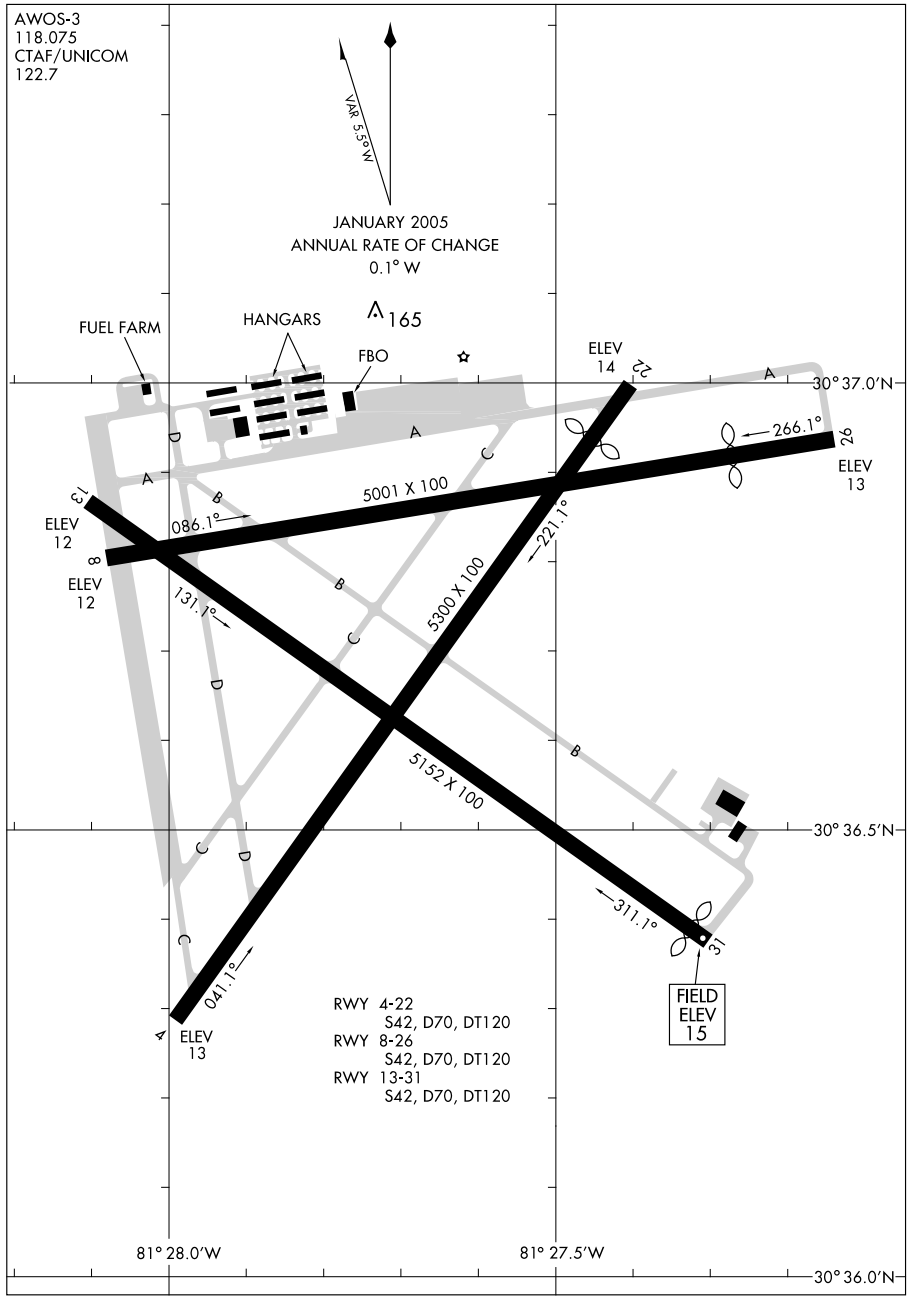
FAYETTEVILLE, NORTH CAROLINA
FAYETTEVILLE RGNL/GRANNIS FIELD (FAY)

10154

AIRPORT DIAGRAM

AL-6597 (FAA)

FERNANDINA BEACH MUNI (FHB)
FERNANDINA BEACH, FLORIDA



AIRPORT DIAGRAM

10154

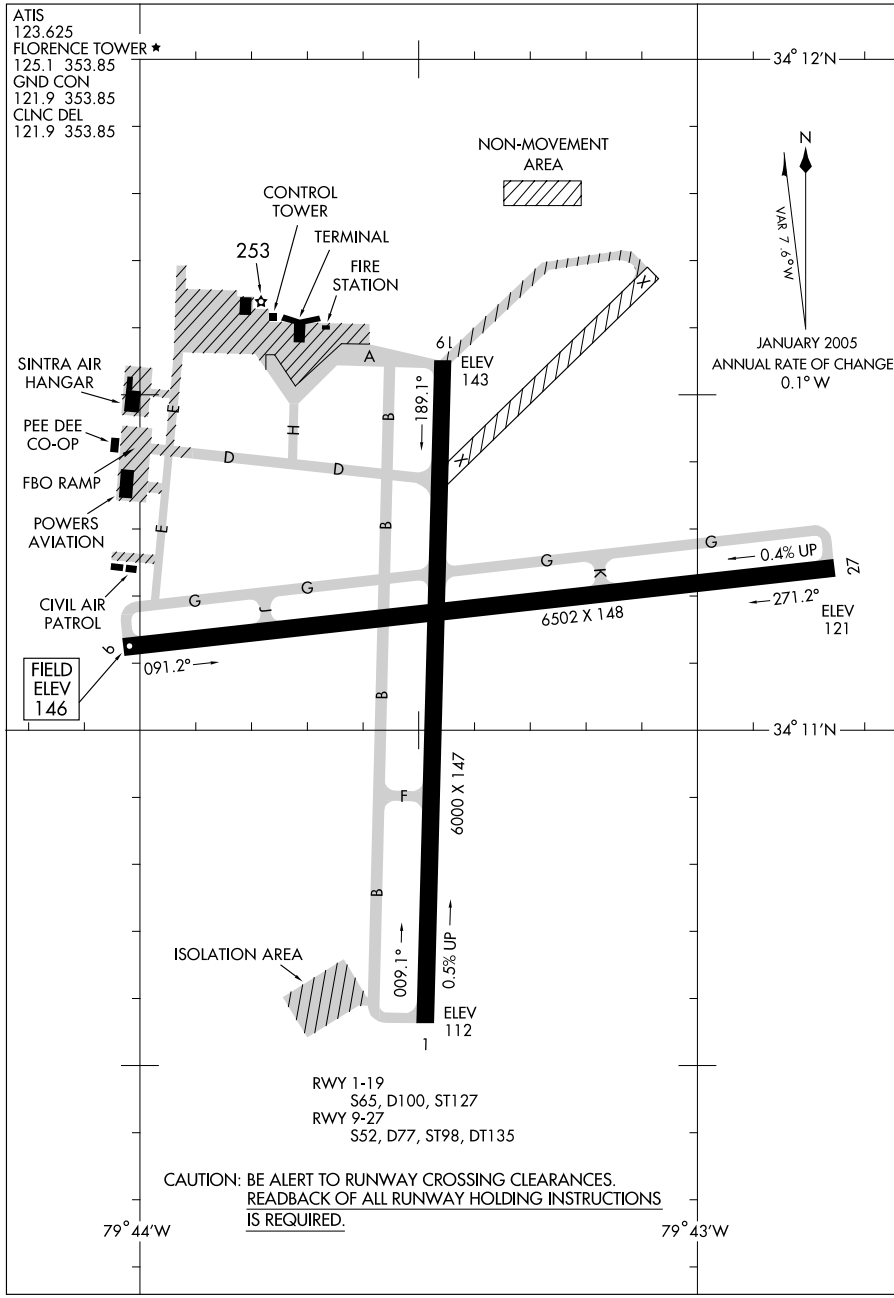
FERNANDINA BEACH, FLORIDA
FERNANDINA BEACH MUNI (FHB)

09015

AIRPORT DIAGRAM

AL-145 (FAA)

FLORENCE RGNL (FLO)
FLORENCE, SOUTH CAROLINA



AIRPORT DIAGRAM
09015

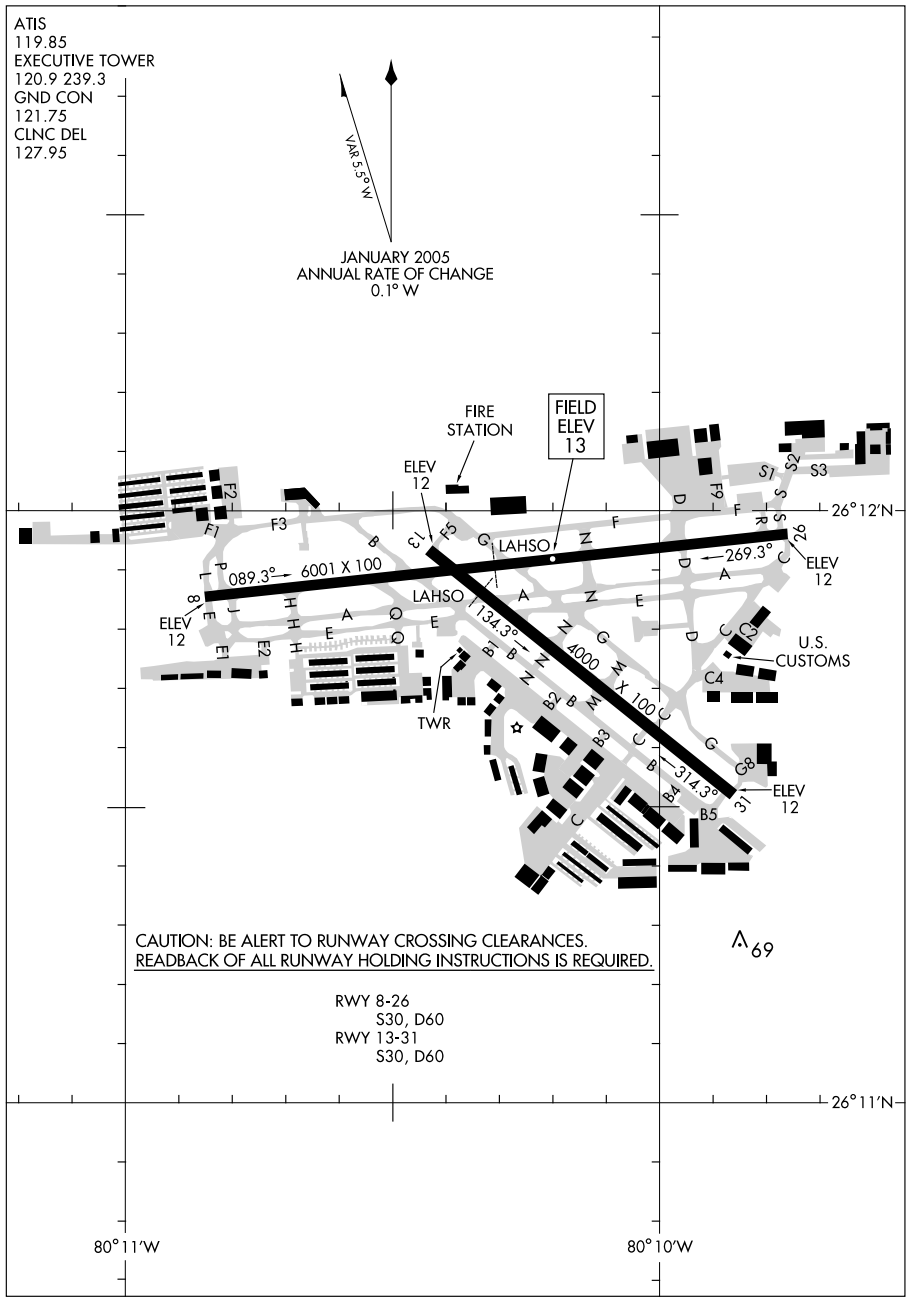
FLORENCE, SOUTH CAROLINA
FLORENCE RGNL (FLO)

10154

AIRPORT DIAGRAM

AL-5942 (FAA)

FORT LAUDERDALE EXECUTIVE (FXE)
FORT LAUDERDALE, FLORIDA



AIRPORT DIAGRAM

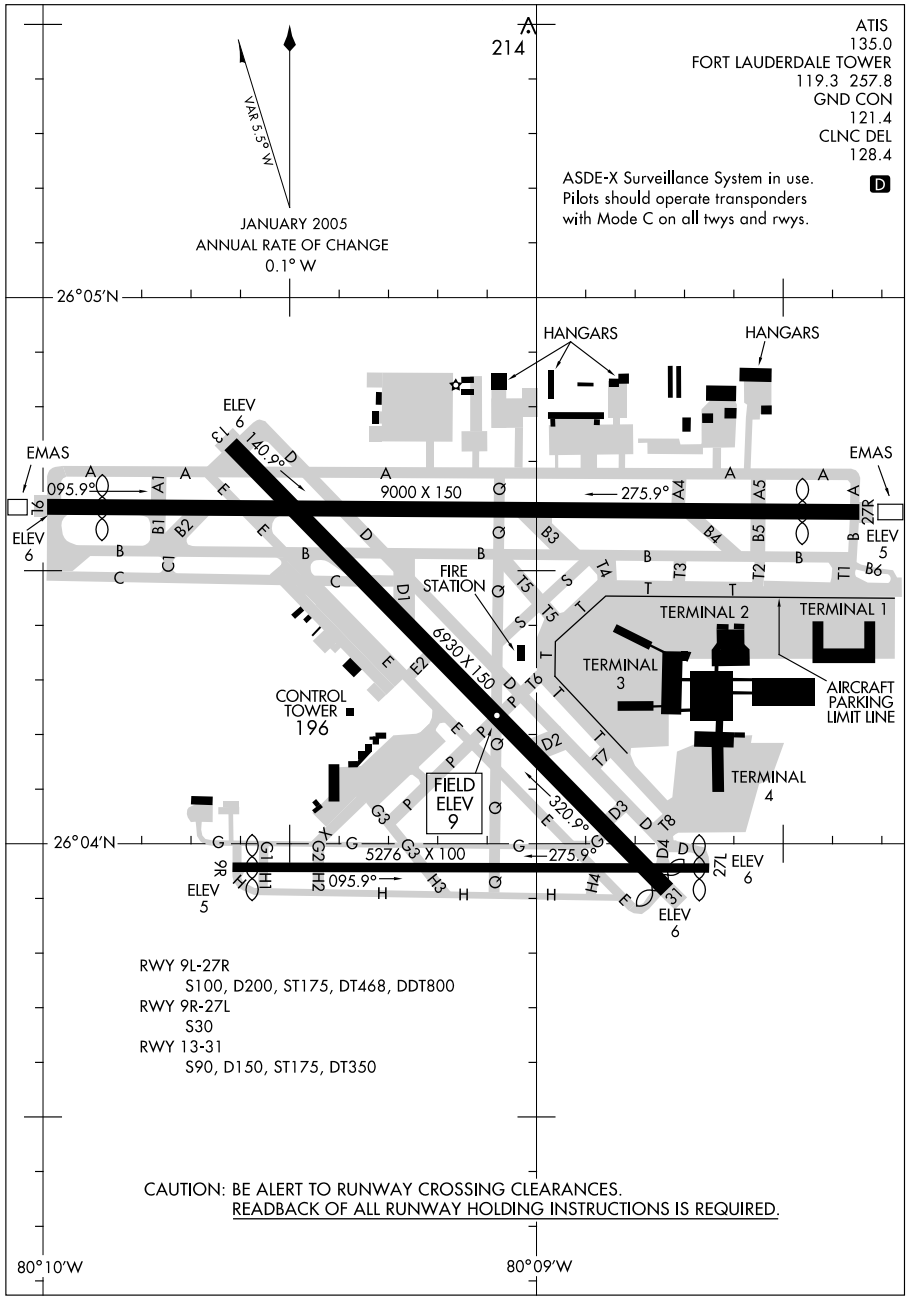
10154

FORT LAUDERDALE, FLORIDA
FORT LAUDERDALE EXECUTIVE (FXE)

10042

AIRPORT DIAGRAM

FORT LAUDERDALE-HOLLYWOOD INTL (FLL)
FORT LAUDERDALE, FLORIDA
AL-744 (FAA)



AIRPORT DIAGRAM

10042

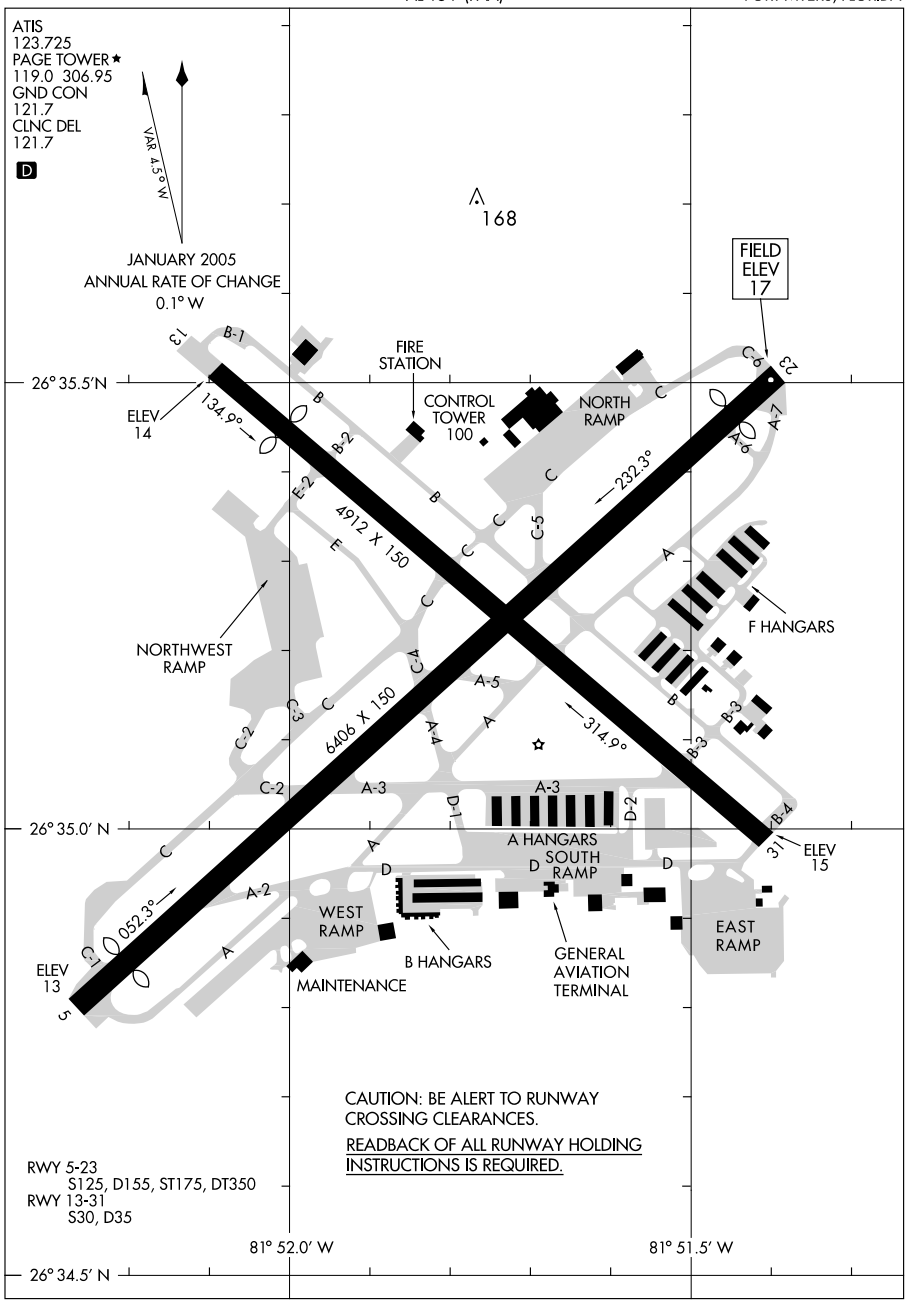
FORT LAUDERDALE, FLORIDA
FORT LAUDERDALE-HOLLYWOOD INTL (FLL)

09239

AIRPORT DIAGRAM

FORT MYERS /PAGE FIELD (FMY)
FORT MYERS, FLORIDA

AL-154 (FAA)



AIRPORT DIAGRAM

09239

FORT MYERS, FLORIDA
FORT MYERS /PAGE FIELD (FMY)

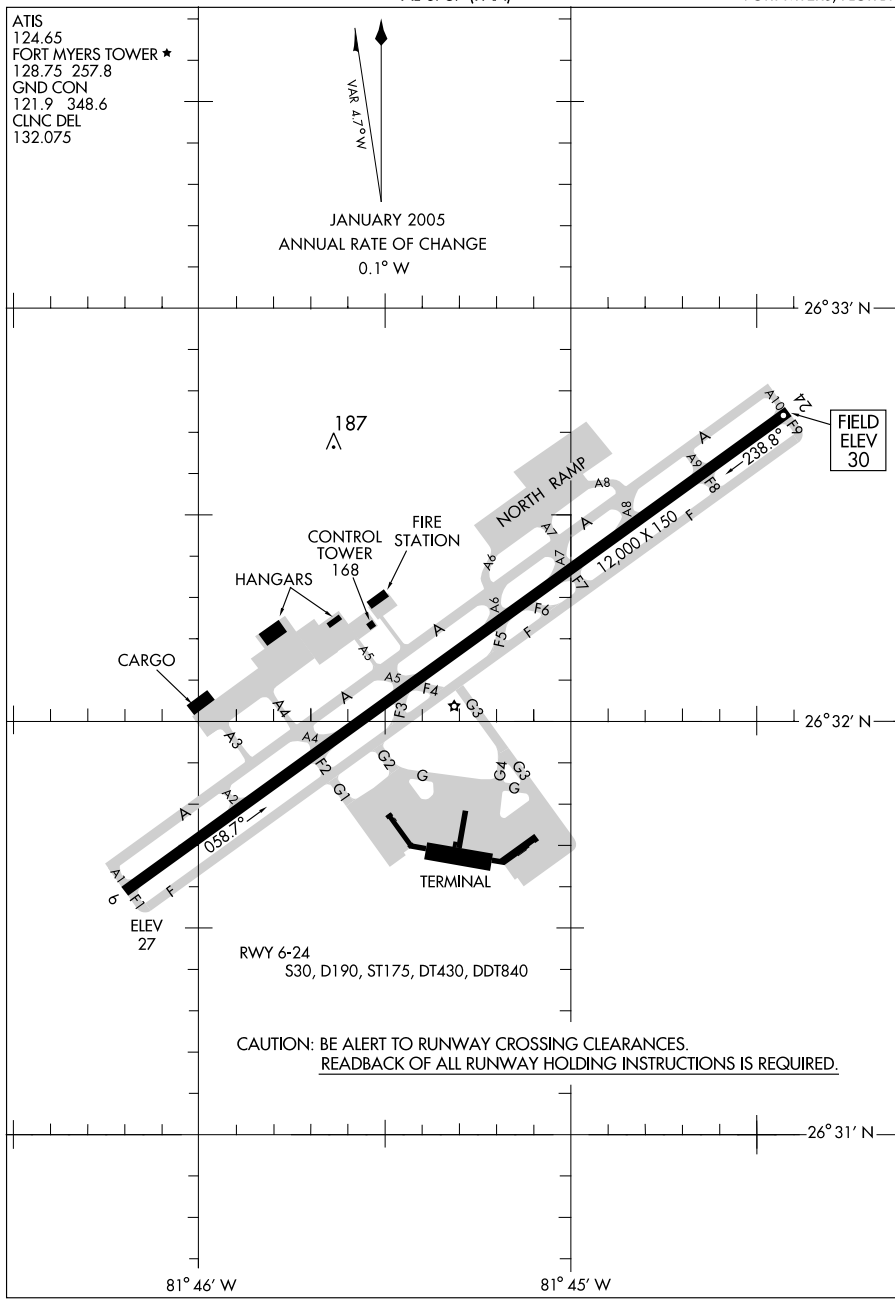
09183

AIRPORT DIAGRAM

FORT MYERS/SOUTHWEST FLORIDA INTL (RSW)

AL-6757 (FAA)

FORT MYERS, FLORIDA

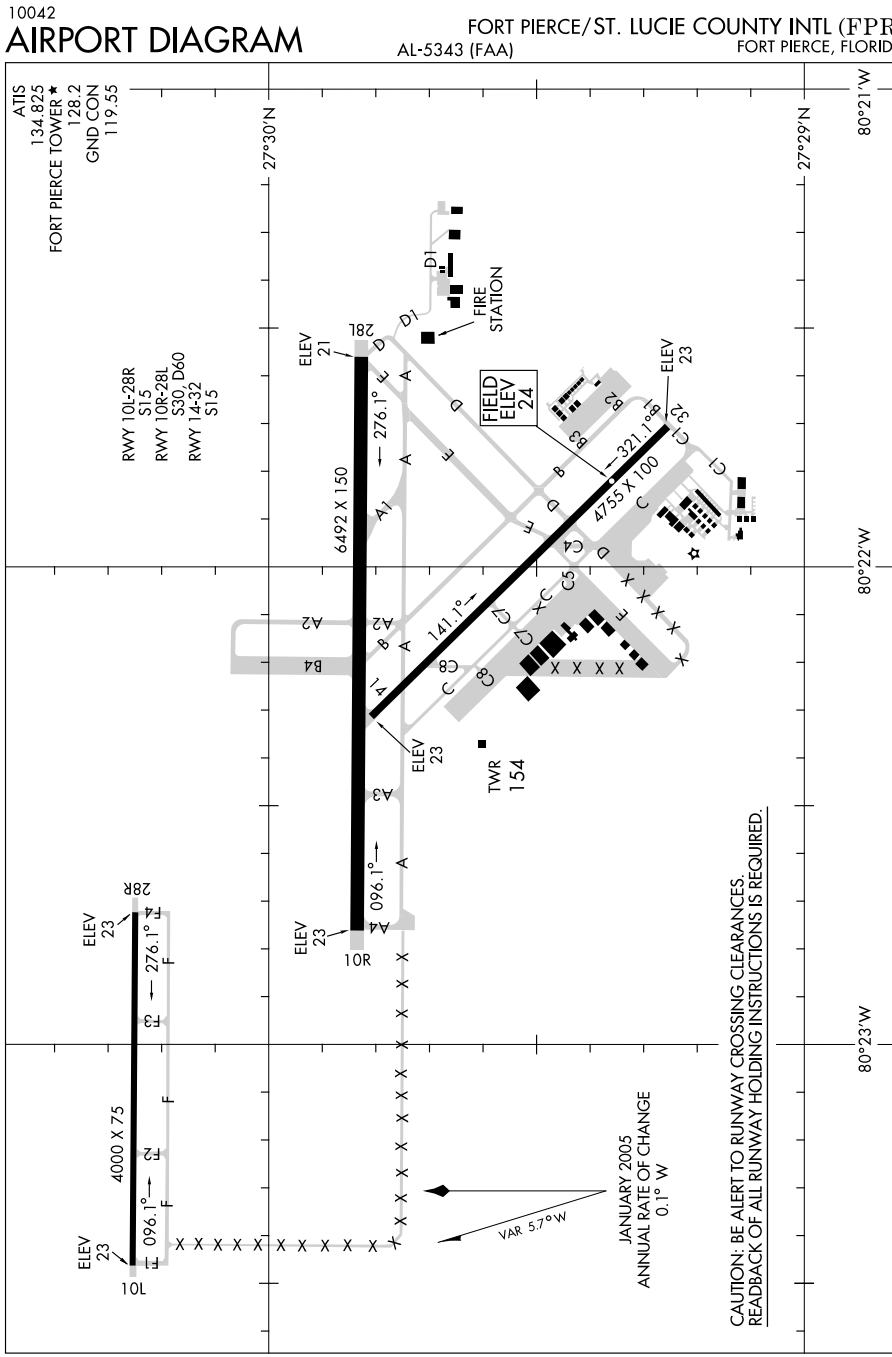


AIRPORT DIAGRAM

FORT MYERS, FLORIDA

FORT MYERS/SOUTHWEST FLORIDA INTL (RSW)

09183

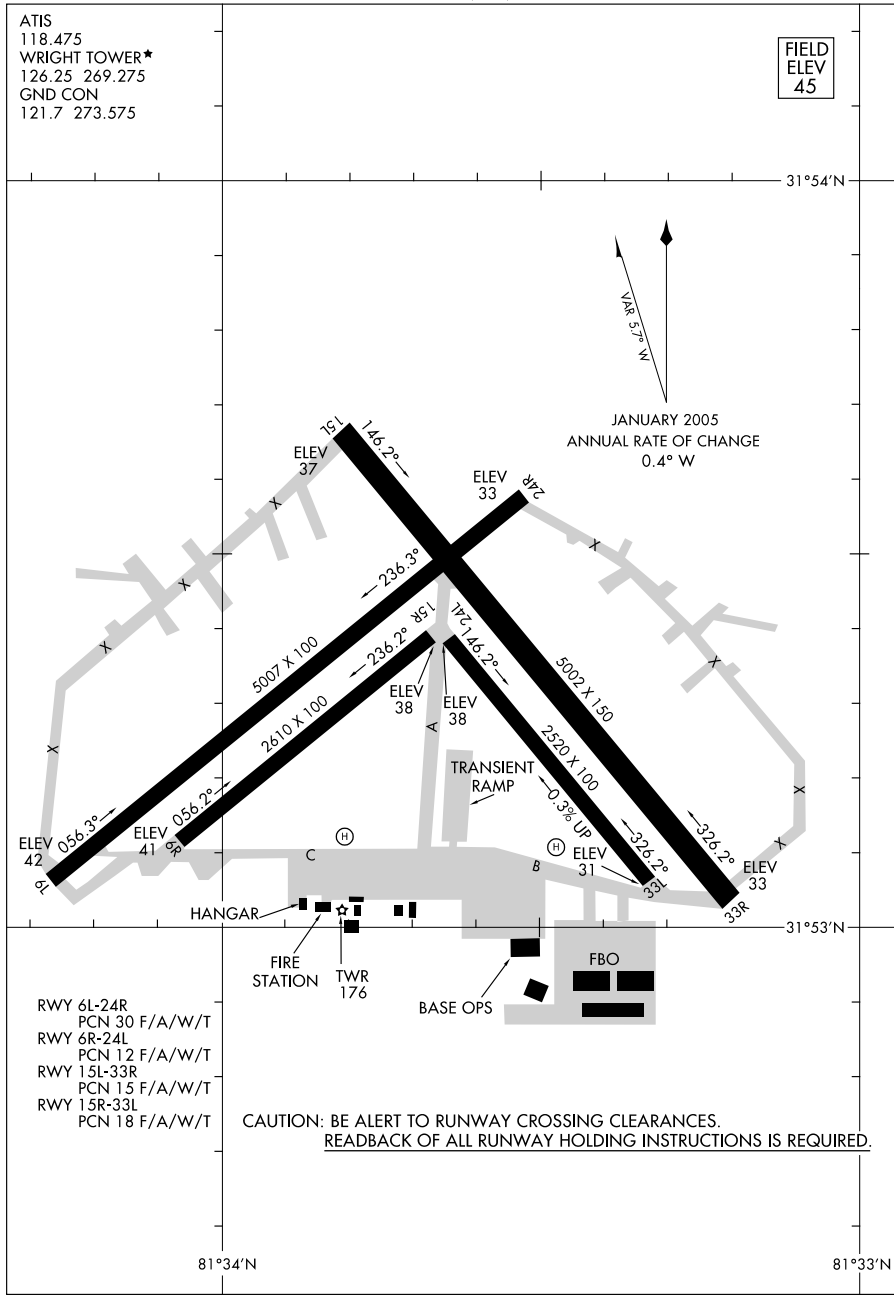

10042
AIRPORT DIAGRAM
FORT PIERCE/ST. LUCIE COUNTY INTL (FPR)
AL-5343 (FAA)
FORT PIERCE, FLORIDA
ATIS 134.825
FORT PIERCE TOWER 128.2
GND CON 119.55
RWY 10L-28R S15
RWY 10R-28L S30, D60
RWY 14-32 S15
27°30'N
27°29'N
80°21'W
80°22'W
80°23'W
FIRE STATION
FIELD ELEV 24
ELEV 21
ELEV 23
6492 X 150
4755 X 100
4000 X 75
276.1°
321.1°
141.1°
096.1°
28L
28R
10R
10L
14
32
TWR 154
JANUARY 2005
ANNUAL RATE OF CHANGE 0.1° W
VAR 5.7°W
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
AIRPORT DIAGRAM
10042
FORT PIERCE, FLORIDA
FORT PIERCE/ST. LUCIE COUNTY INTL (FPR)

10098 FORT STEWART(HINESVILLE)/ WRIGHT AAF(FORT STEWART)/MIDCOAST RGNL(LHW)

AIRPORT DIAGRAM

AL-5170 (FAA)

FORT STEWART(HINESVILLE), GEORGIA



AIRPORT DIAGRAM

FORT STEWART(HINESVILLE), GEORGIA

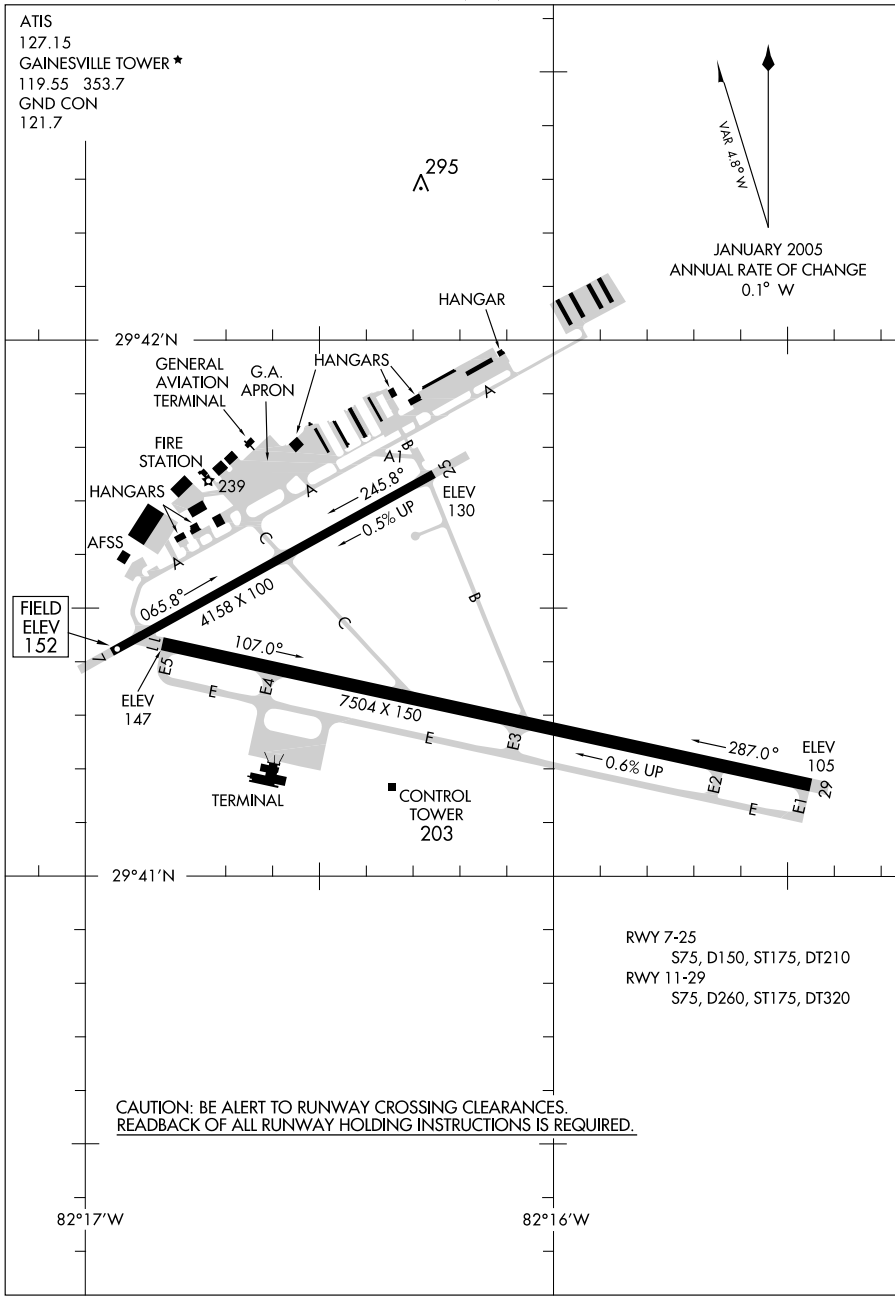
10098 FORT STEWART(HINESVILLE)/ WRIGHT AAF(FORT STEWART)/MIDCOAST RGNL(LHW)

10042

AIRPORT DIAGRAM

AL-973 (FAA)

GAINESVILLE RGNL (GNV)
GAINESVILLE, FLORIDA



AIRPORT DIAGRAM

10042

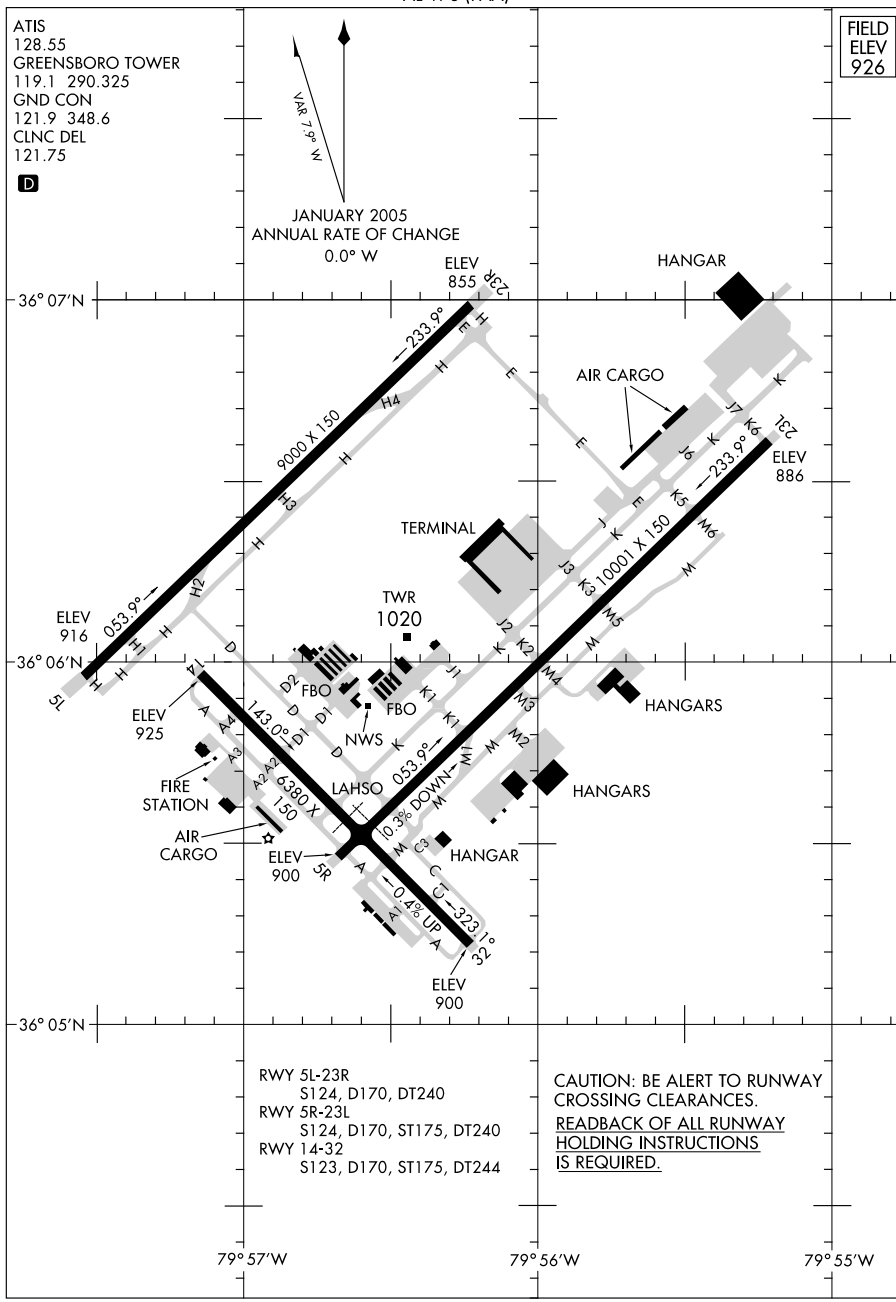
GAINESVILLE, FLORIDA
GAINESVILLE RGNL (GNV)

10042

AIRPORT DIAGRAM

GREENSBORO/ PIEDMONT TRIAD INTL (GSO)
GREENSBORO, NORTH CAROLINA

AL-178 (FAA)



AIRPORT DIAGRAM

10042

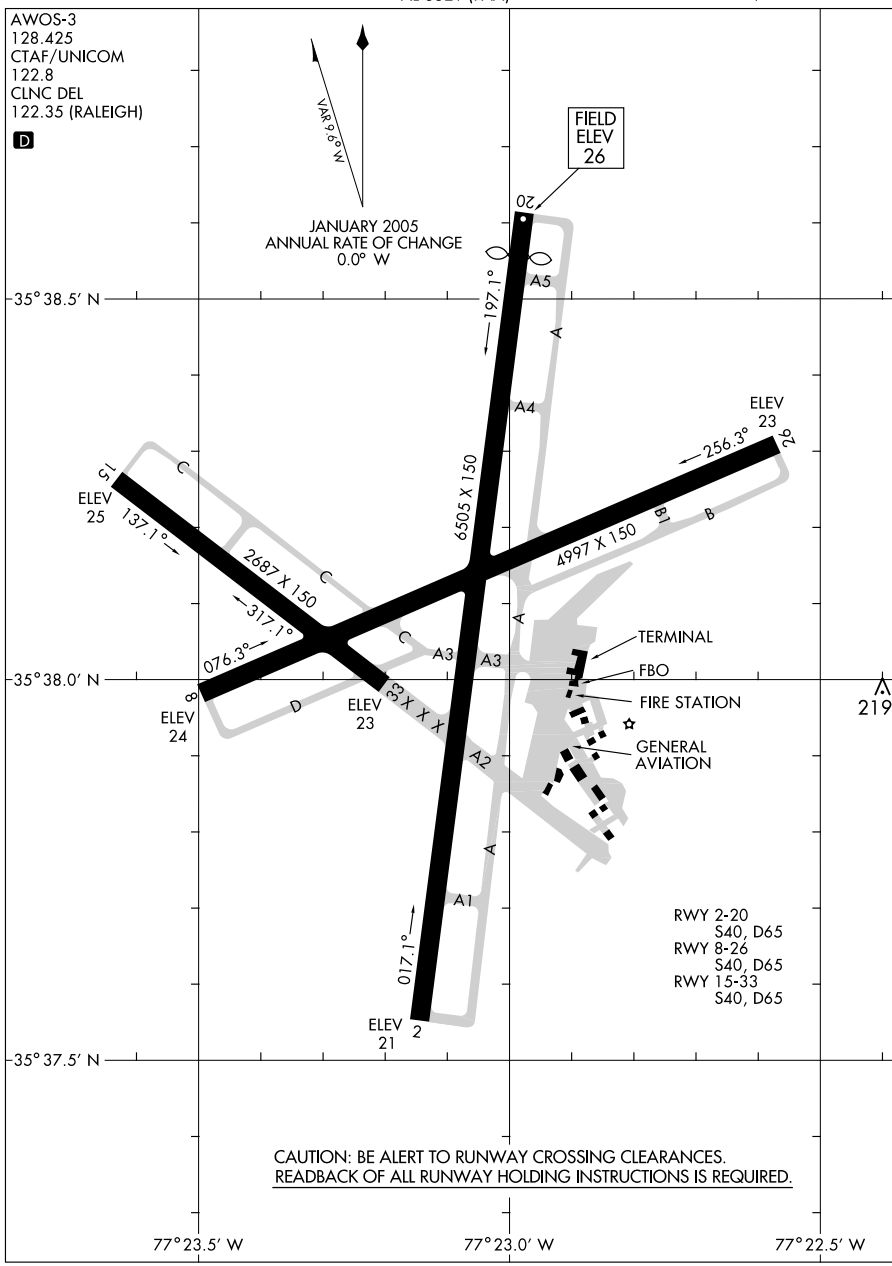
GREENSBORO, NORTH CAROLINA
GREENSBORO/ PIEDMONT TRIAD INTL (GSO)

09295

AIRPORT DIAGRAM

AL-5521 (FAA)

GREENVILLE/PITT-GREENVILLE (PGV)
GREENVILLE, NORTH CAROLINA



AIRPORT DIAGRAM

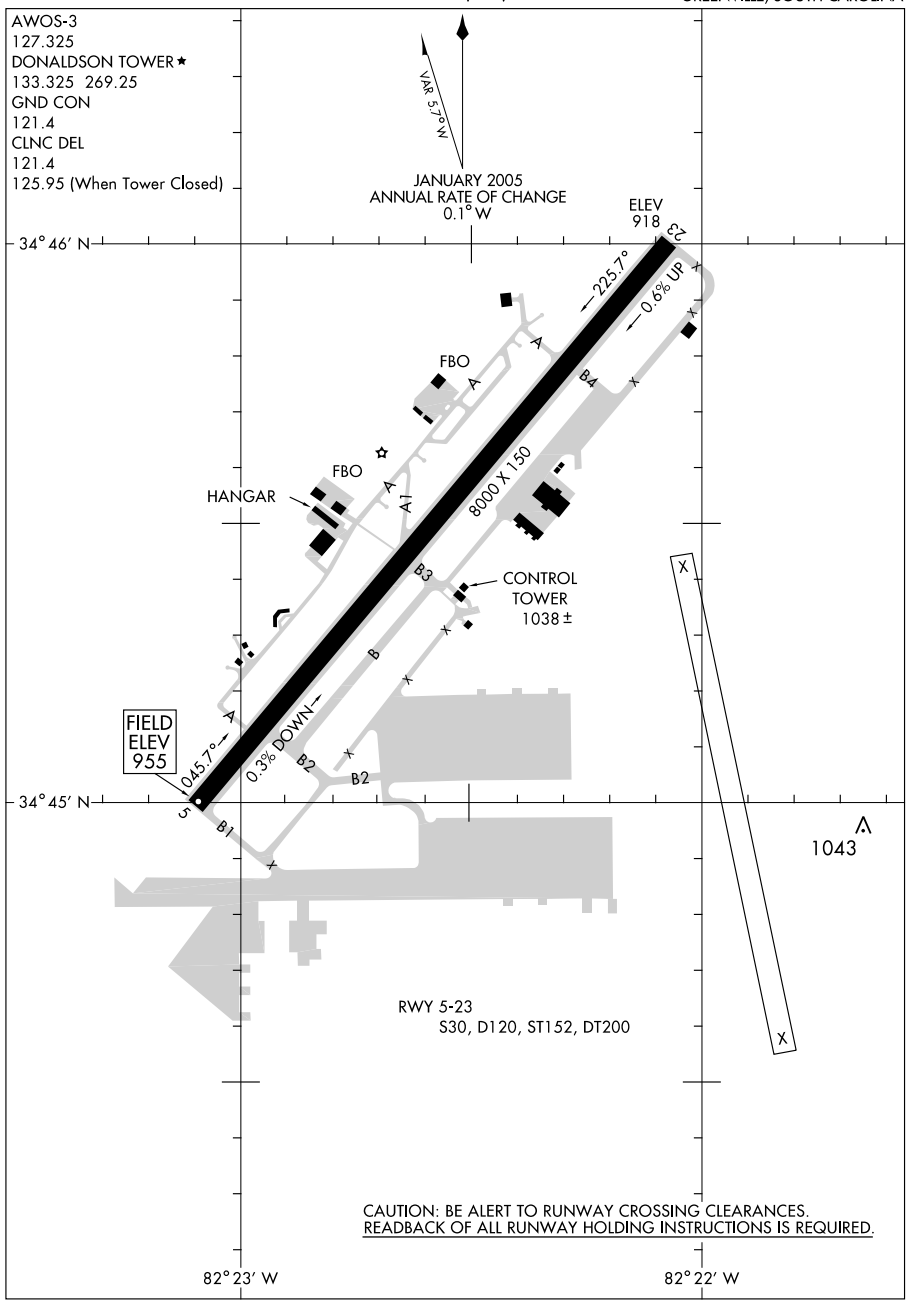
09295

GREENVILLE, NORTH CAROLINA
GREENVILLE/PITT-GREENVILLE (PGV)

09071

AIRPORT DIAGRAM

GREENVILLE/ DONALDSON CENTER (GYH)
GREENVILLE, SOUTH CAROLINA



AIRPORT DIAGRAM

09071

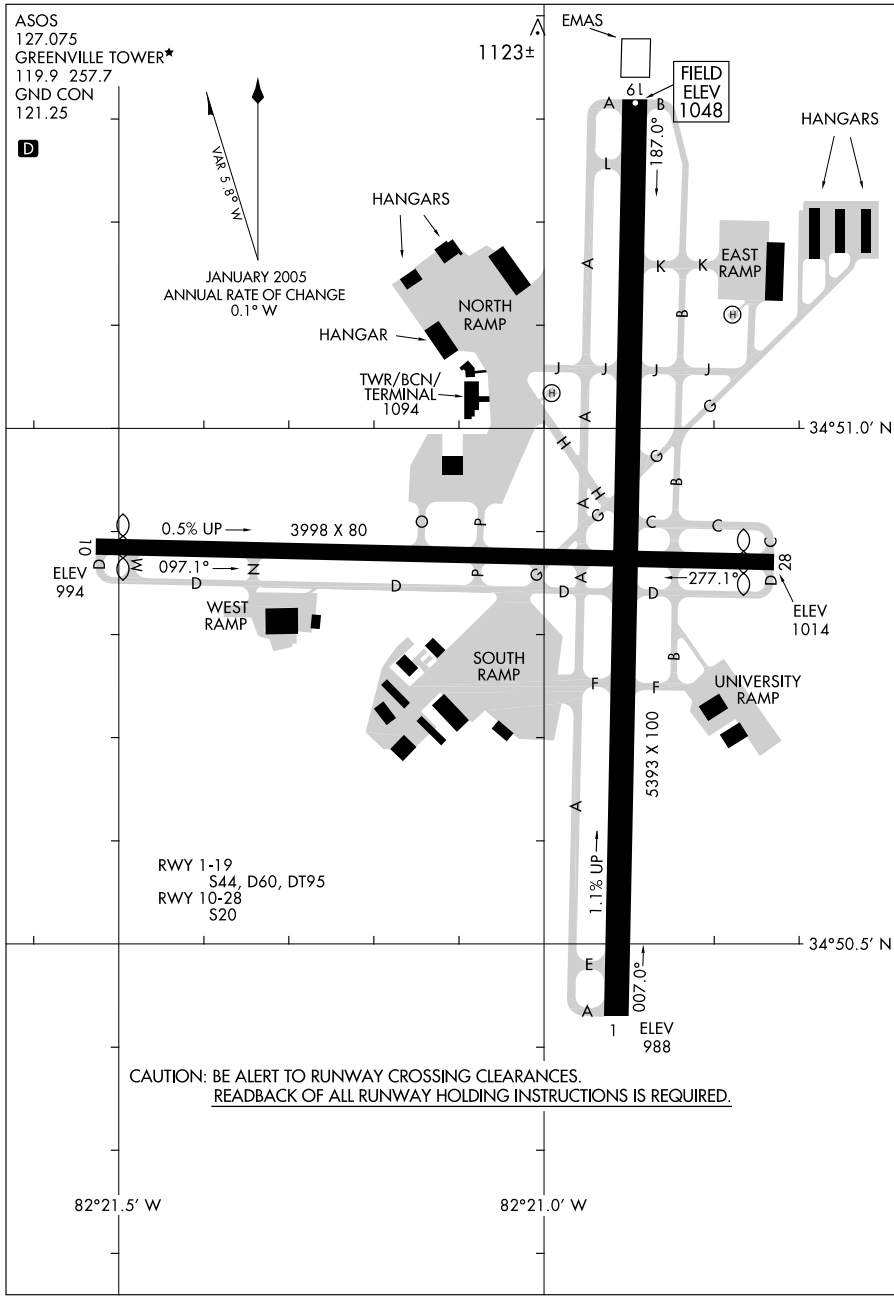
GREENVILLE, SOUTH CAROLINA
GREENVILLE/ DONALDSON CENTER (GYH)

10042

AIRPORT DIAGRAM

AL-180 (FAA)

GREENVILLE DOWNTOWN (GMU)
GREENVILLE, SOUTH CAROLINA



AIRPORT DIAGRAM

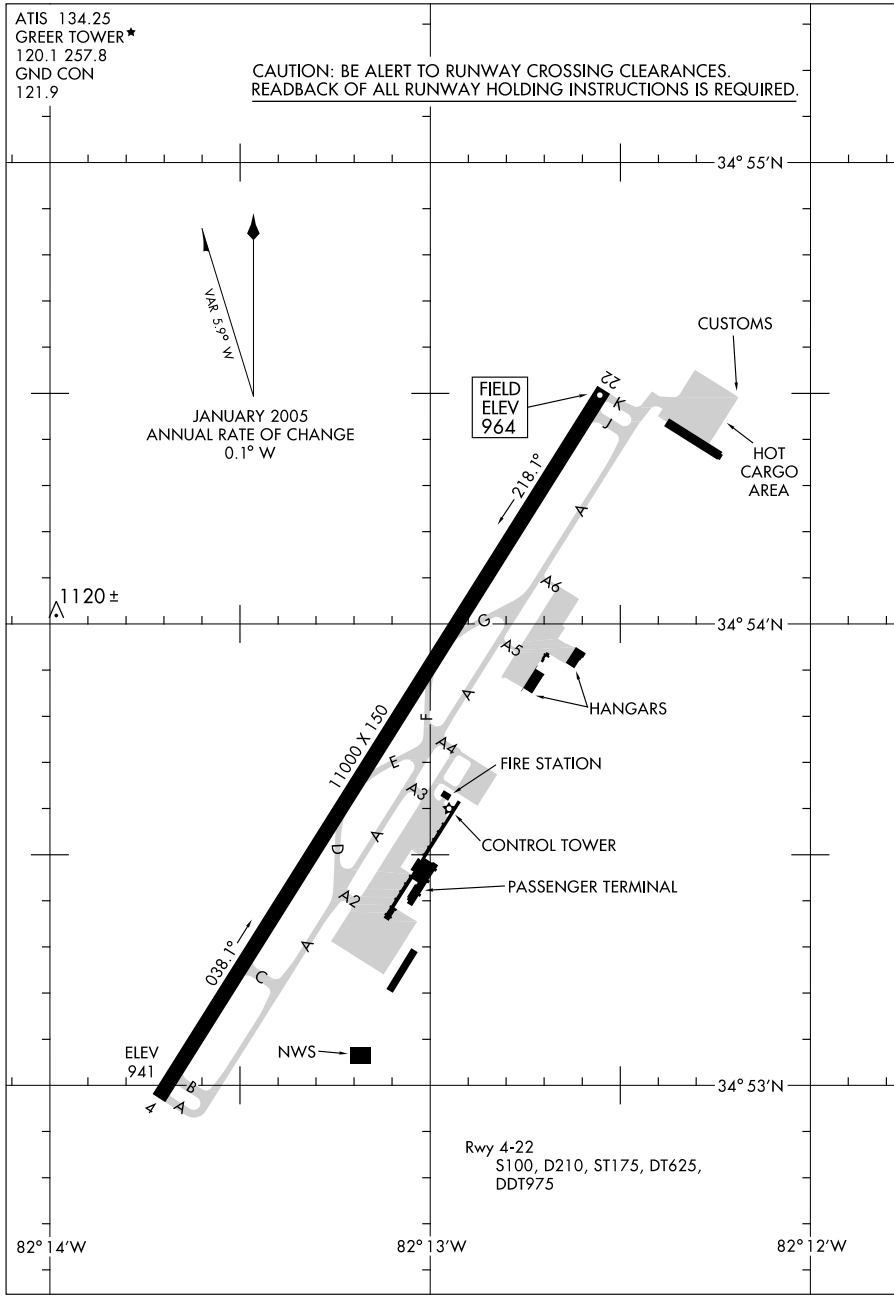
10042

GREENVILLE, SOUTH CAROLINA
GREENVILLE DOWNTOWN (GMU)

07298

AIRPORT DIAGRAM

GREER/ GREENVILLE-SPARTANBURG INTL-ROGER MILLIKEN (GSP)
AL-5124 (FAA)
GREER, SOUTH CAROLINA



AIRPORT DIAGRAM

GREER, SOUTH CAROLINA
GREER/ GREENVILLE-SPARTANBURG INTL-ROGER MILLIKEN (GSP)

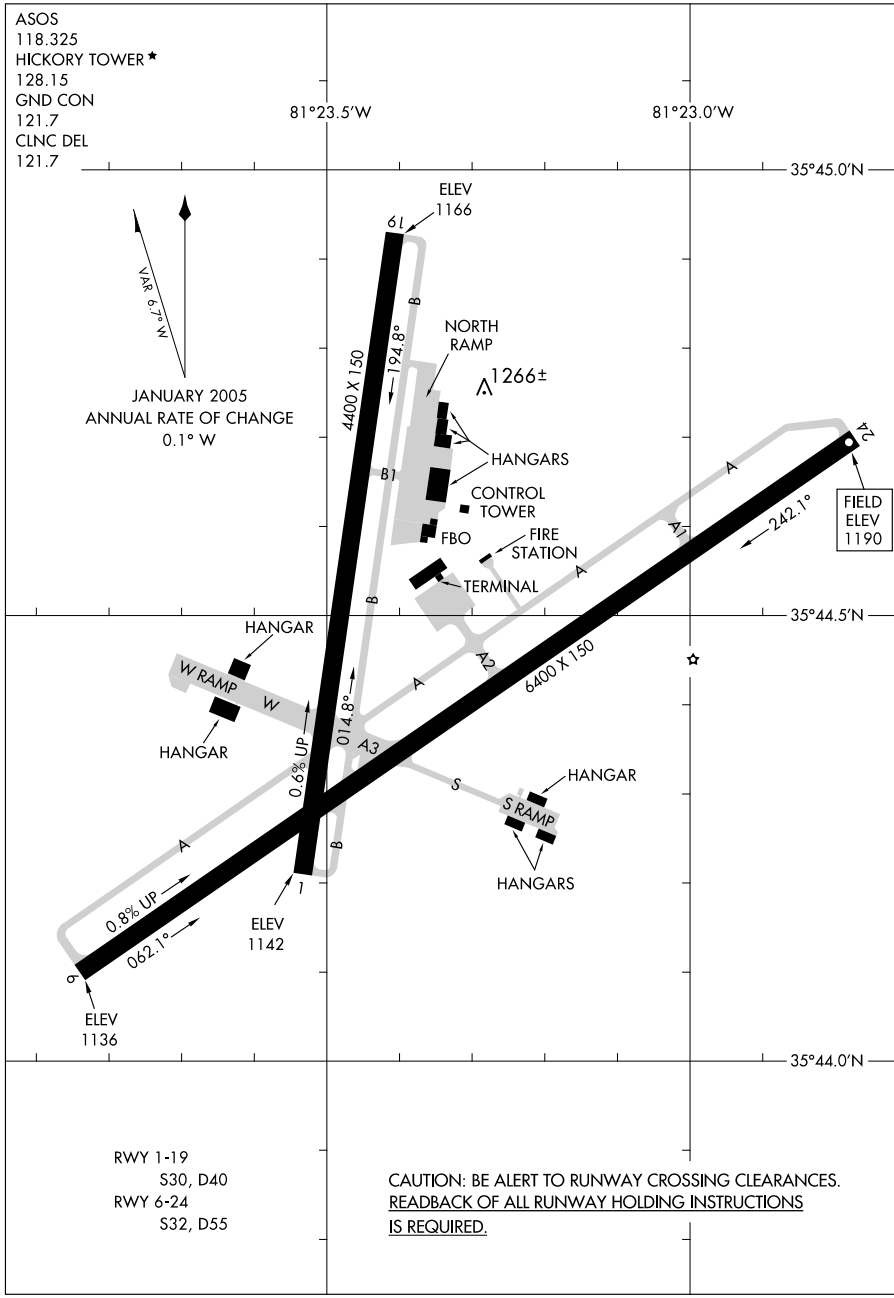
07298

09239

AIRPORT DIAGRAM

AL-706 (FAA)

HICKORY RGNL (HKY)
HICKORY, NORTH CAROLINA



AIRPORT DIAGRAM

09239

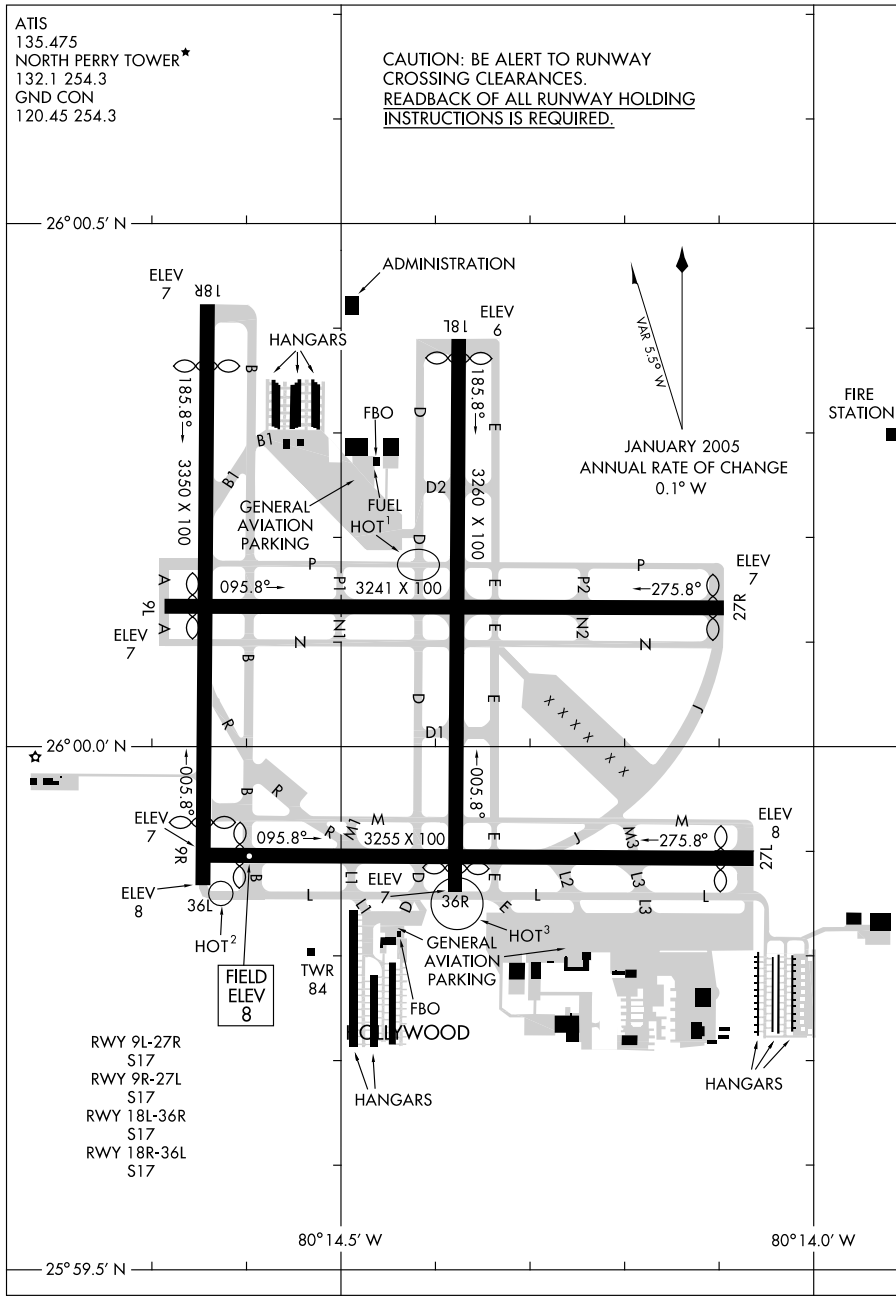
HICKORY, NORTH CAROLINA
HICKORY RGNL (HKY)

10154

AIRPORT DIAGRAM

HOLLYWOOD /NORTH PERRY (HWO)
HOLLYWOOD, FLORIDA

AL-5606 (FAA)



AIRPORT DIAGRAM

10154

HOLLYWOOD, FLORIDA
HOLLYWOOD /NORTH PERRY (HWO)

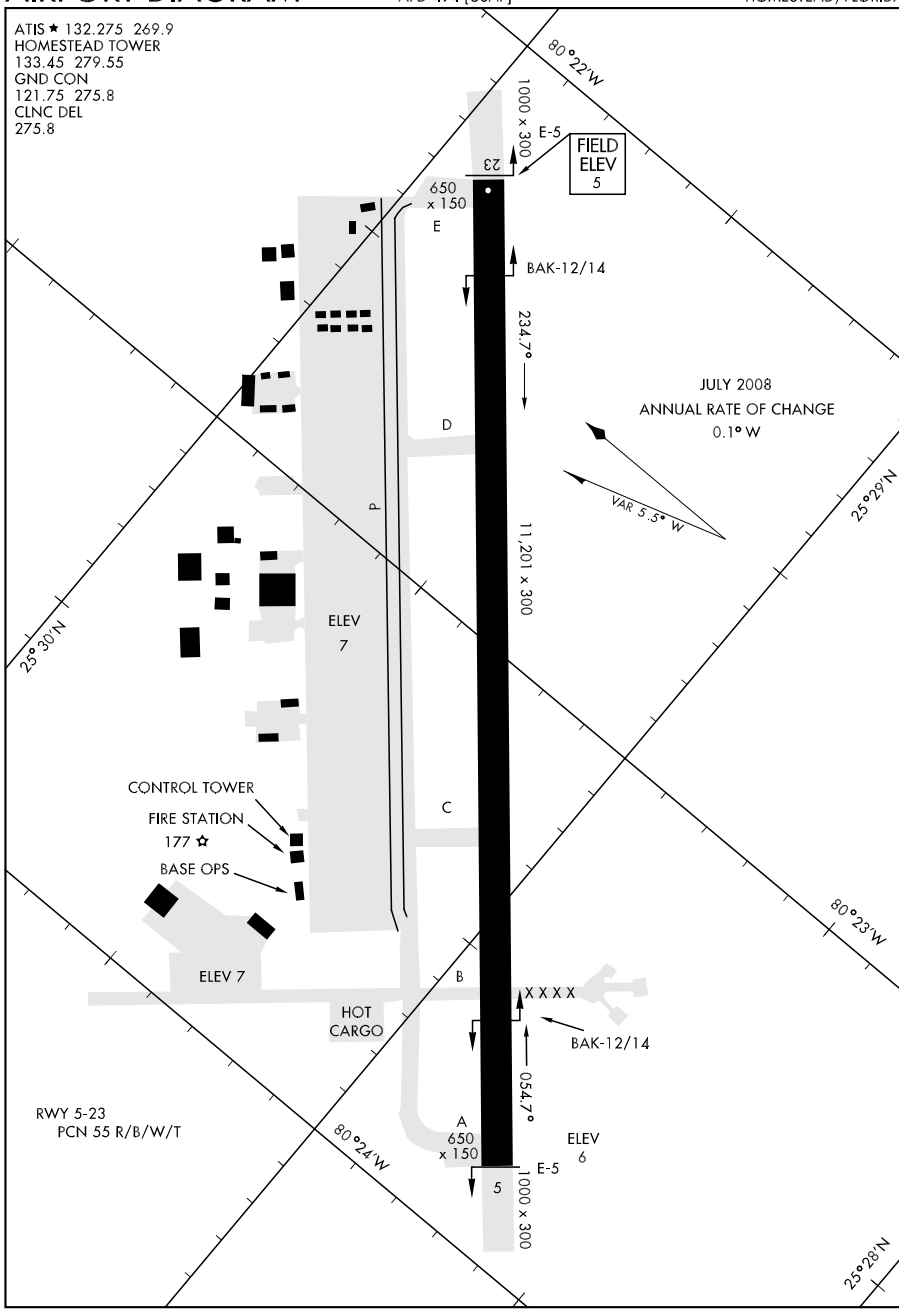
08241

AIRPORT DIAGRAM

HOMESTEAD ARB (KHST)

AFD-494 [USAF]

HOMESTEAD, FLORIDA



AIRPORT DIAGRAM

HOMESTEAD, FLORIDA

HOMESTEAD ARB (KHST)

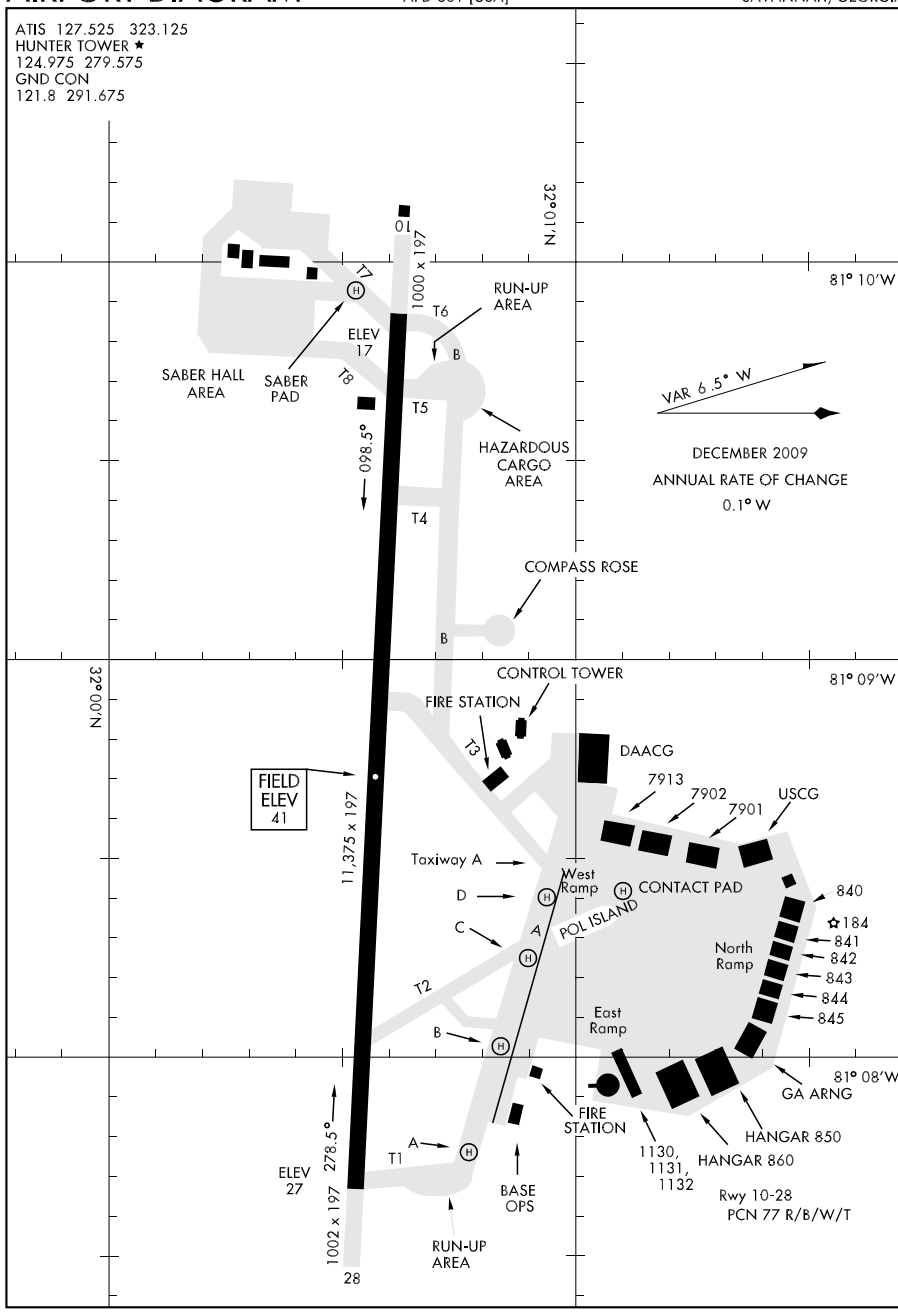
09351

AIRPORT DIAGRAM

AFD-381 [USA]

HUNTER AAF (KSVN)

SAVANNAH, GEORGIA



AIRPORT DIAGRAM

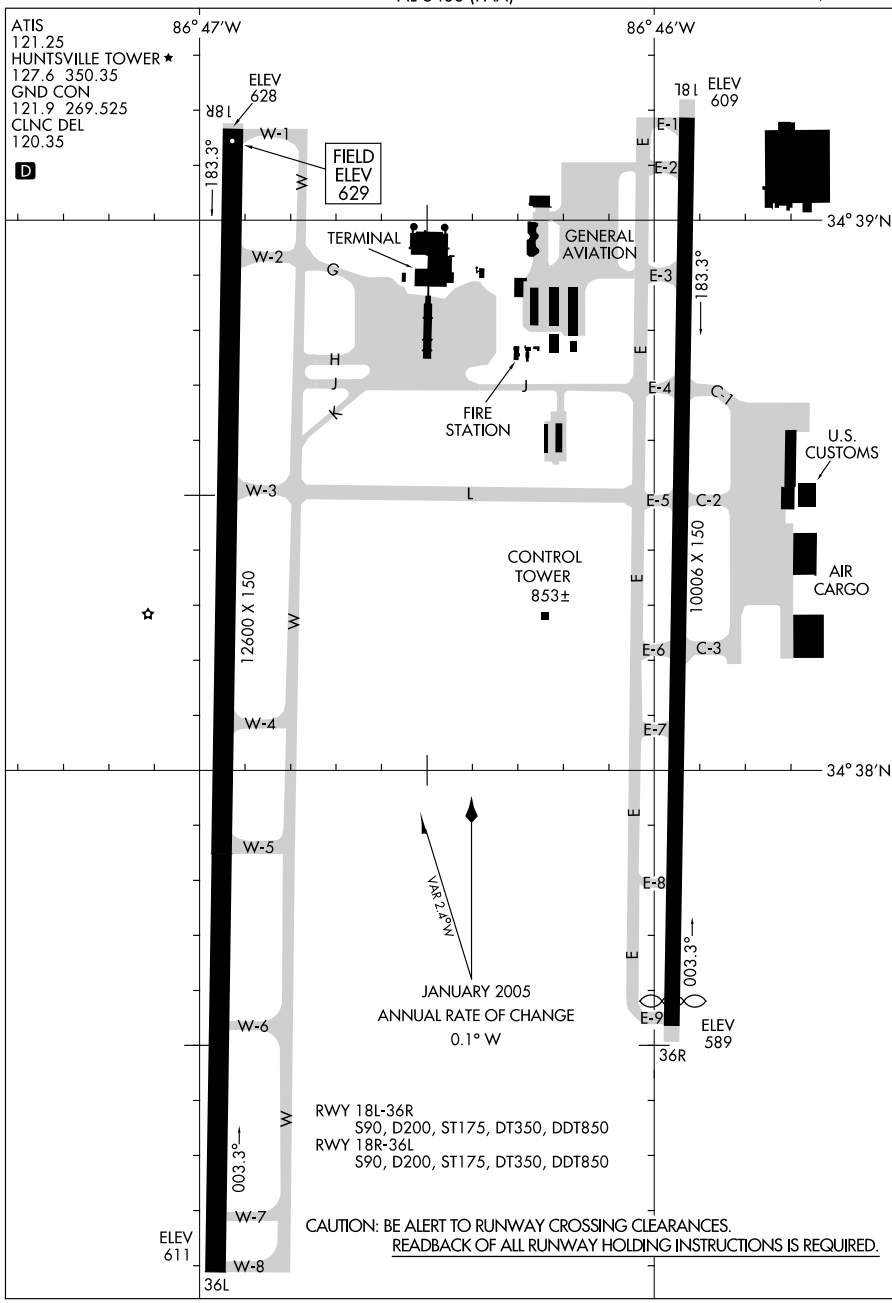
SAVANNAH, GEORGIA

HUNTER AAF (KSVN)

09351

AIRPORT DIAGRAM

HUNTSVILLE INTL-CARL T. JONES FIELD (HSV)
HUNTSVILLE, ALABAMA
AL-5488 (FAA)



AIRPORT DIAGRAM
09351
HUNTSVILLE, ALABAMA
HUNTSVILLE INTL-CARL T. JONES FIELD (HSV)

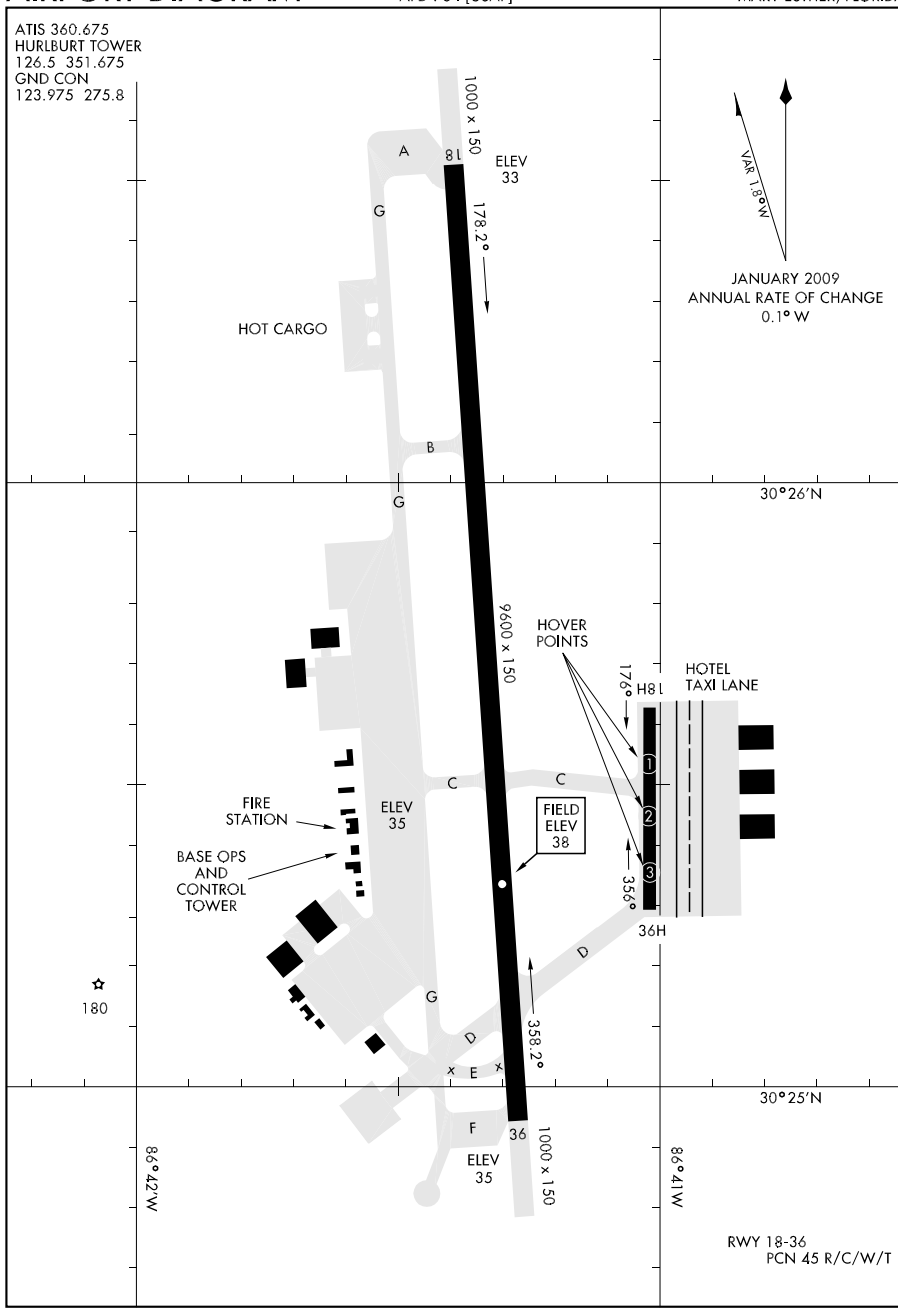
09015

AIRPORT DIAGRAM

AFD-734 [USAF]

HURLBURT FLD (KHRT)

MARY ESTHER, FLORIDA



AIRPORT DIAGRAM

MARY ESTHER, FLORIDA

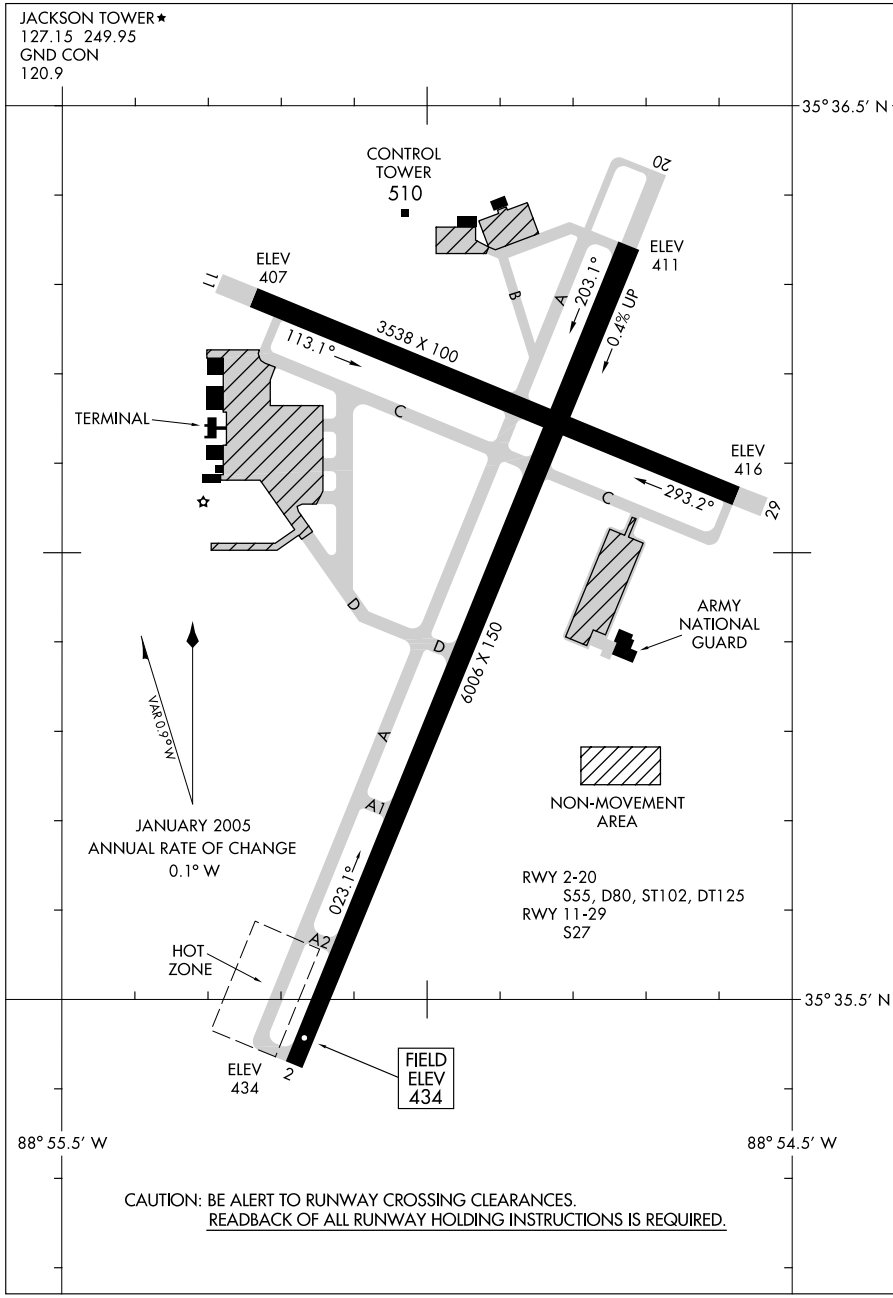
HURLBURT FLD (KHRT)

08325

AIRPORT DIAGRAM

AL-5062 (FAA)

JACKSON/McKELLAR-SIPES RGNL (MKL)
JACKSON, TENNESSEE



AIRPORT DIAGRAM
08325

JACKSON, TENNESSEE
JACKSON/McKELLAR-SIPES RGNL (MKL)

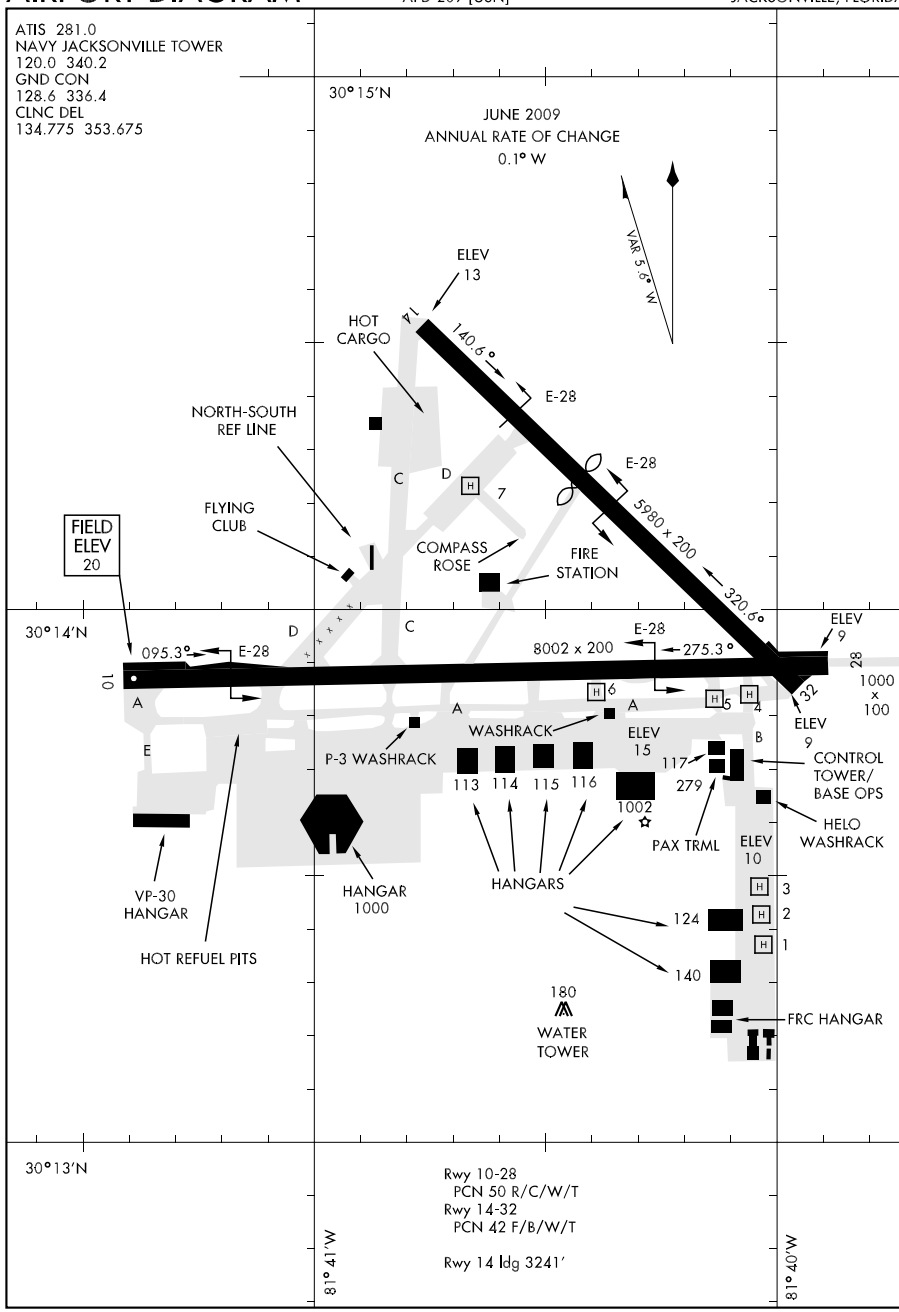
09155

AIRPORT DIAGRAM

JACKSONVILLE NAS (KNIP)

AFD-209 [USN]

JACKSONVILLE, FLORIDA



AIRPORT DIAGRAM

JACKSONVILLE, FLORIDA

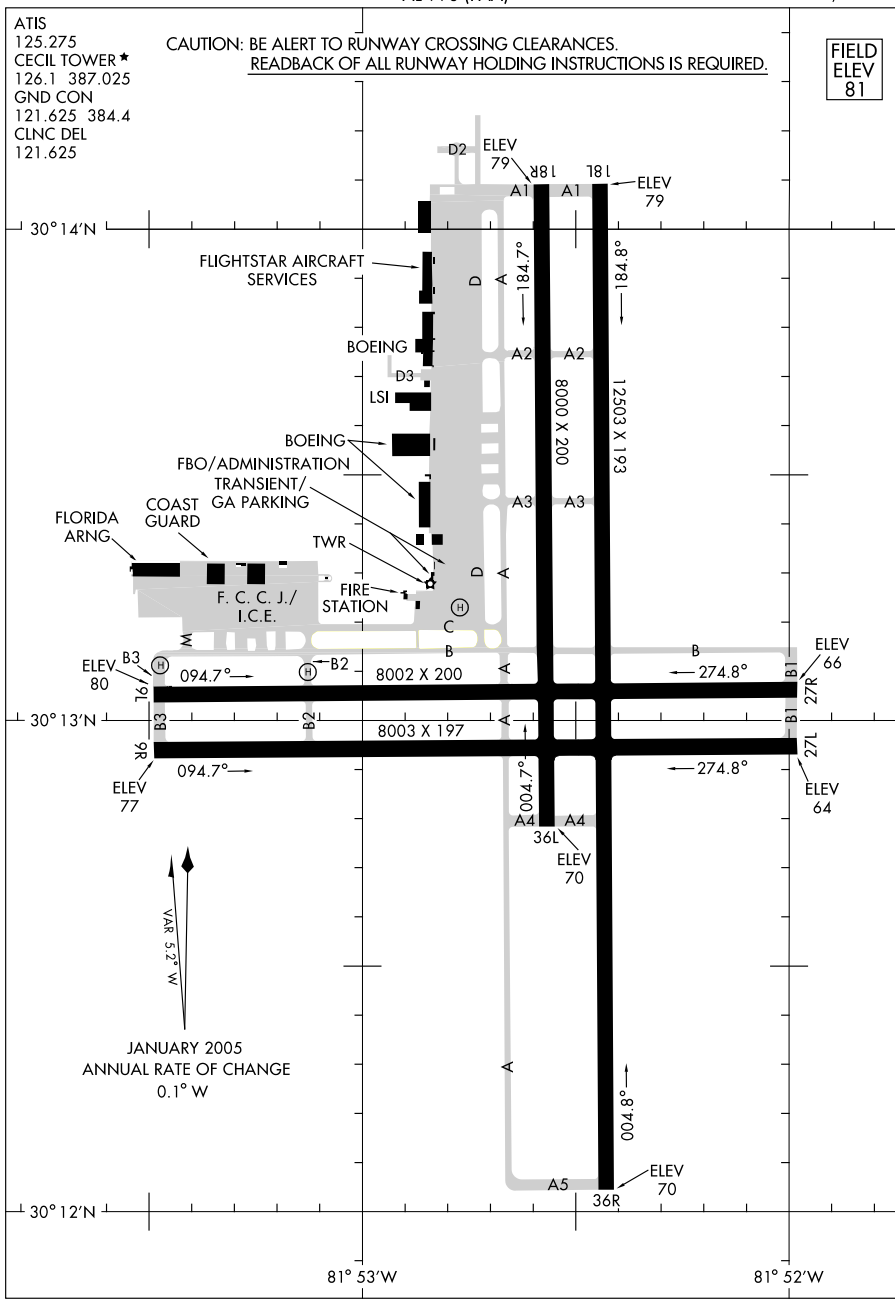
JACKSONVILLE NAS (KNIP)

10154

AIRPORT DIAGRAM

JACKSONVILLE/ CECIL FIELD (VQQ)
JACKSONVILLE, FLORIDA

AL-998 (FAA)



AIRPORT DIAGRAM

10154

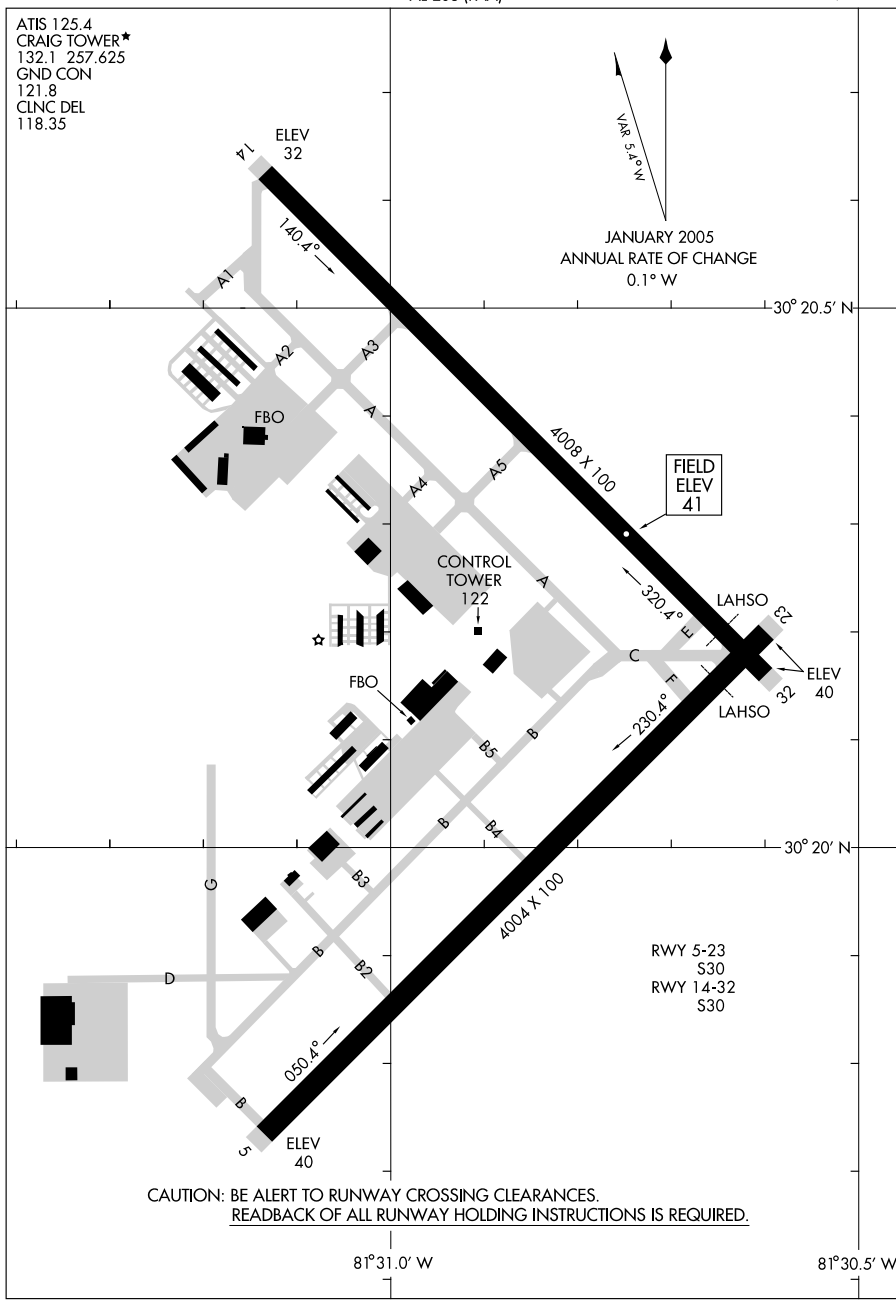
JACKSONVILLE, FLORIDA
JACKSONVILLE/ CECIL FIELD (VQQ)

07354

AIRPORT DIAGRAM

JACKSONVILLE/ CRAIG MUNI (CRG)
JACKSONVILLE, FLORIDA

AL-208 (FAA)



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

07354

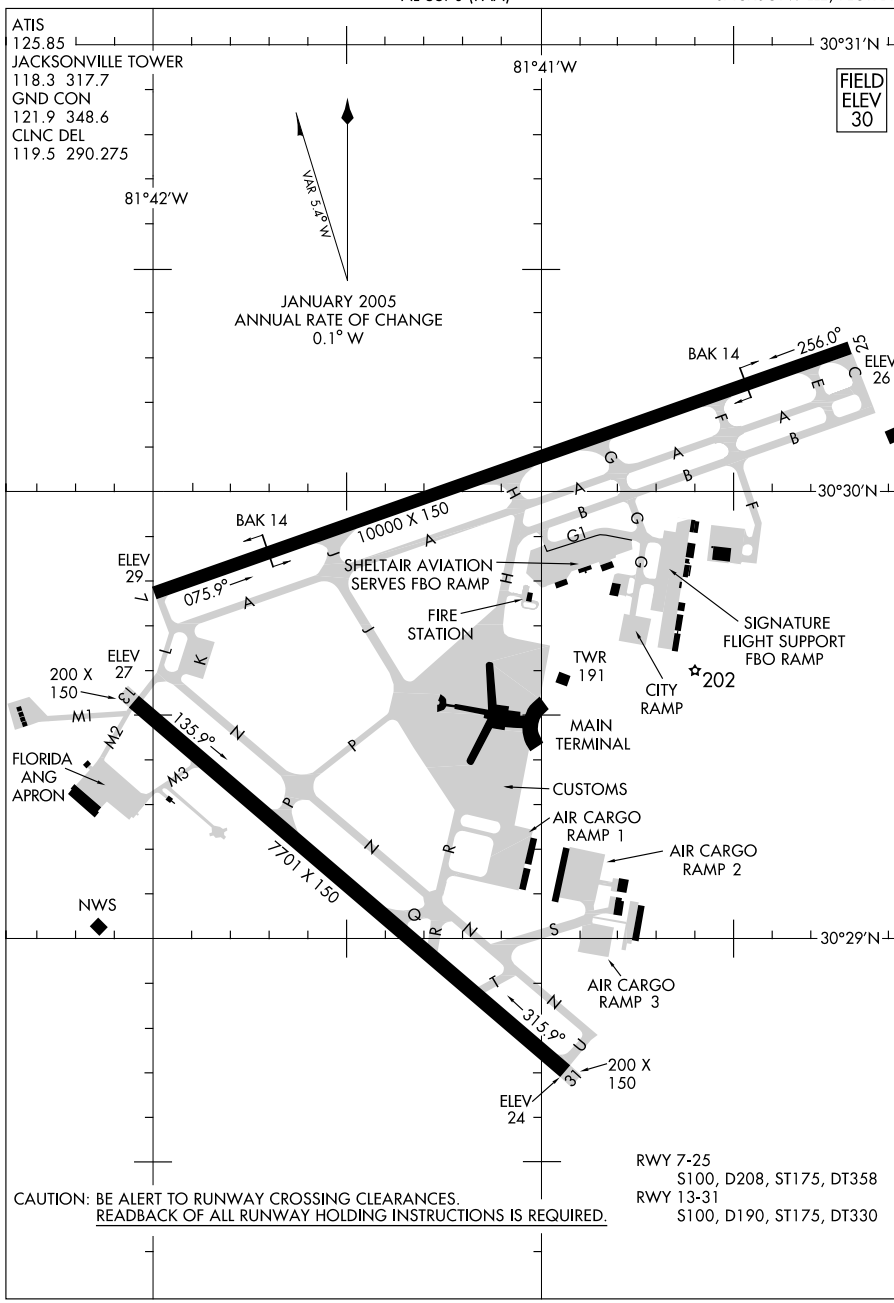
JACKSONVILLE, FLORIDA
JACKSONVILLE/ CRAIG MUNI (CRG)

10154

AIRPORT DIAGRAM

AL-5570 (FAA)

JACKSONVILLE INTL (JAX)
JACKSONVILLE, FLORIDA



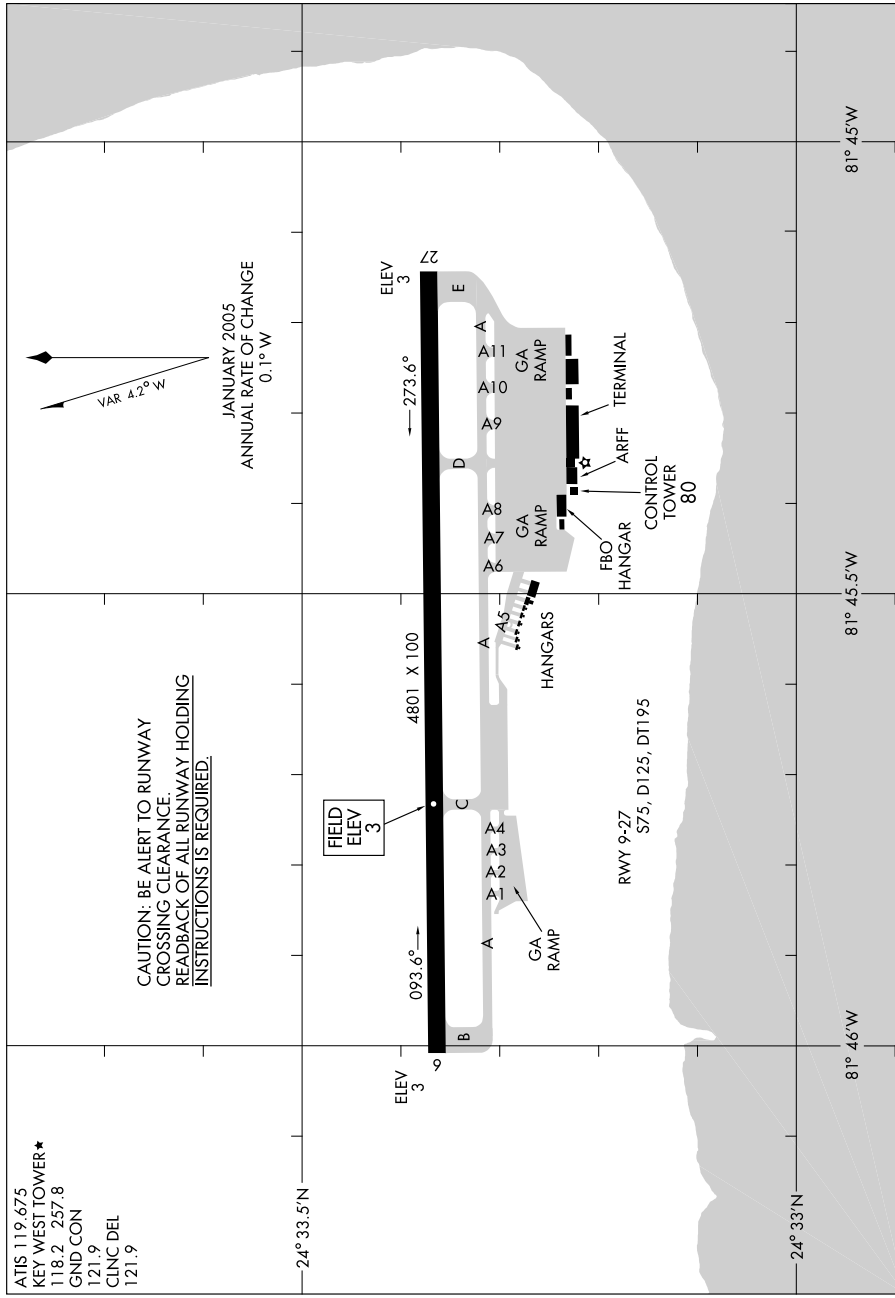
AIRPORT DIAGRAM
10154
JACKSONVILLE, FLORIDA
JACKSONVILLE INTL (JAX)

06215

AIRPORT DIAGRAM

AL-606 (FAA)

KEY WEST INTL (EYW)
KEY WEST, FLORIDA



AIRPORT DIAGRAM
06215

KEY WEST, FLORIDA
KEY WEST INTL (EYW)

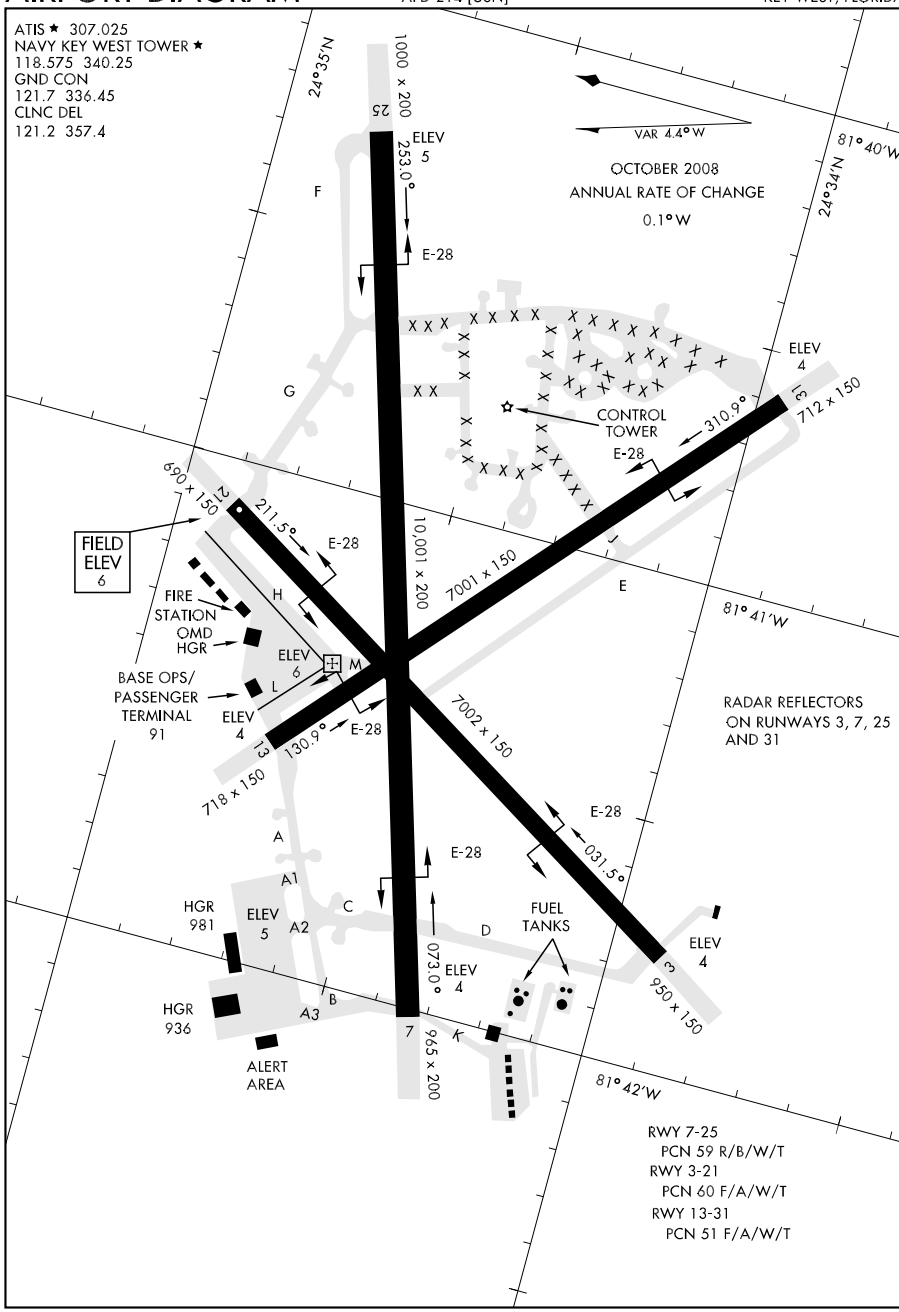
09015

AIRPORT DIAGRAM

KEY WEST NAS (BOCA CHICA FLD) (KNQX)

AFD-214 [USN]

KEY WEST, FLORIDA



AIRPORT DIAGRAM

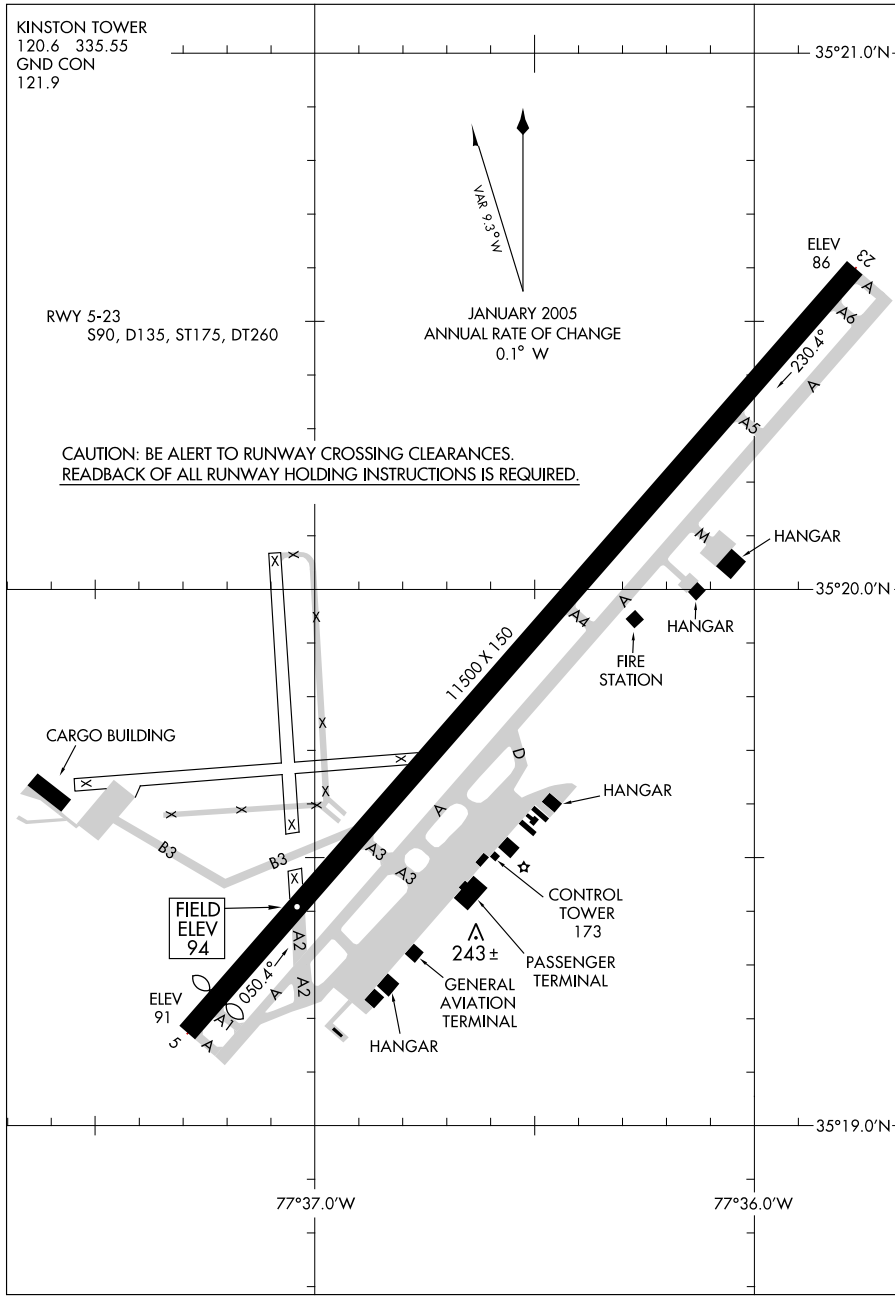
KEY WEST, FLORIDA

KEY WEST NAS (BOCA CHICA FLD) (KNQX)

07298

AIRPORT DIAGRAM

KINSTON RGNL JETPORT AT STALLINGS FIELD (ISO)
AL-5038 (FAA)
KINSTON, NORTH CAROLINA



AIRPORT DIAGRAM

07298

KINSTON, NORTH CAROLINA
KINSTON RGNL JETPORT AT STALLINGS FIELD (ISO)

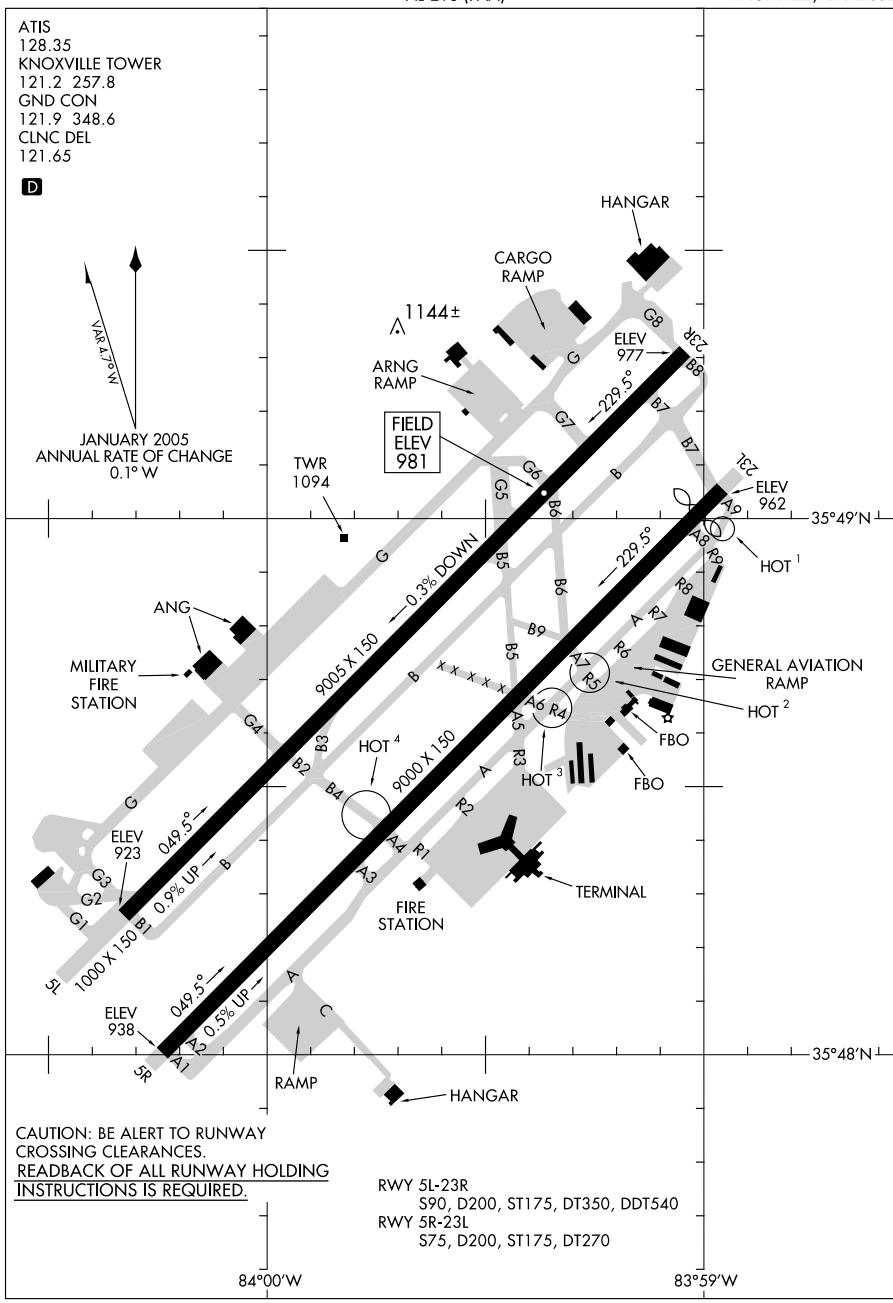
10098

AIRPORT DIAGRAM

KNOXVILLE /MCGHEE-TYSON (TYS)

AL-218 (FAA)

KNOXVILLE,TENNESSEE



AIRPORT DIAGRAM
10098
KNOXVILLE,TENNESSEE
KNOXVILLE /MCGHEE-TYSON(TYS)

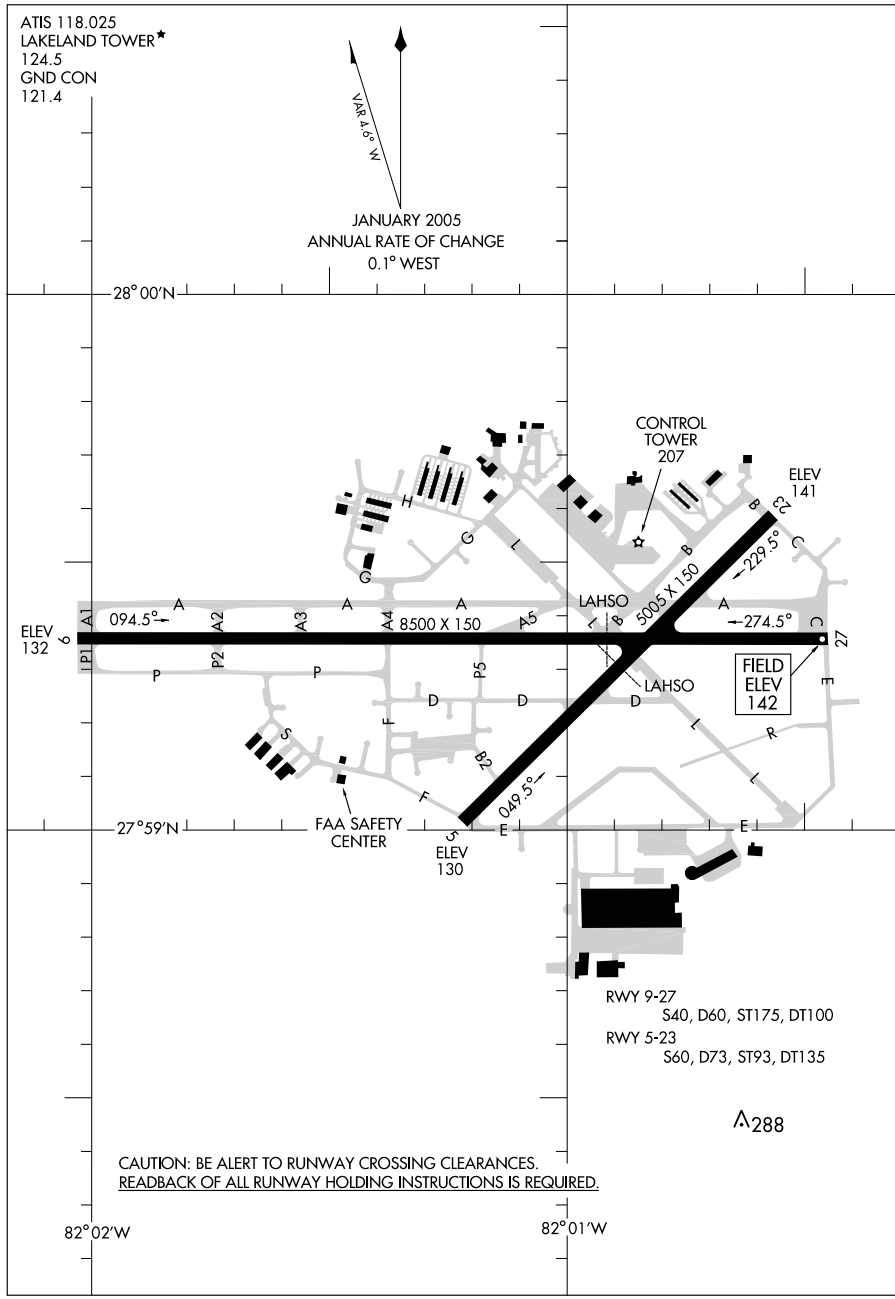
07354

AIRPORT DIAGRAM

AL-939 (FAA)

LAKELAND LINDER RGNL (LAL)

LAKELAND, FLORIDA



AIRPORT DIAGRAM

07354

LAKELAND, FLORIDA

LAKELAND LINDER RGNL (LAL)

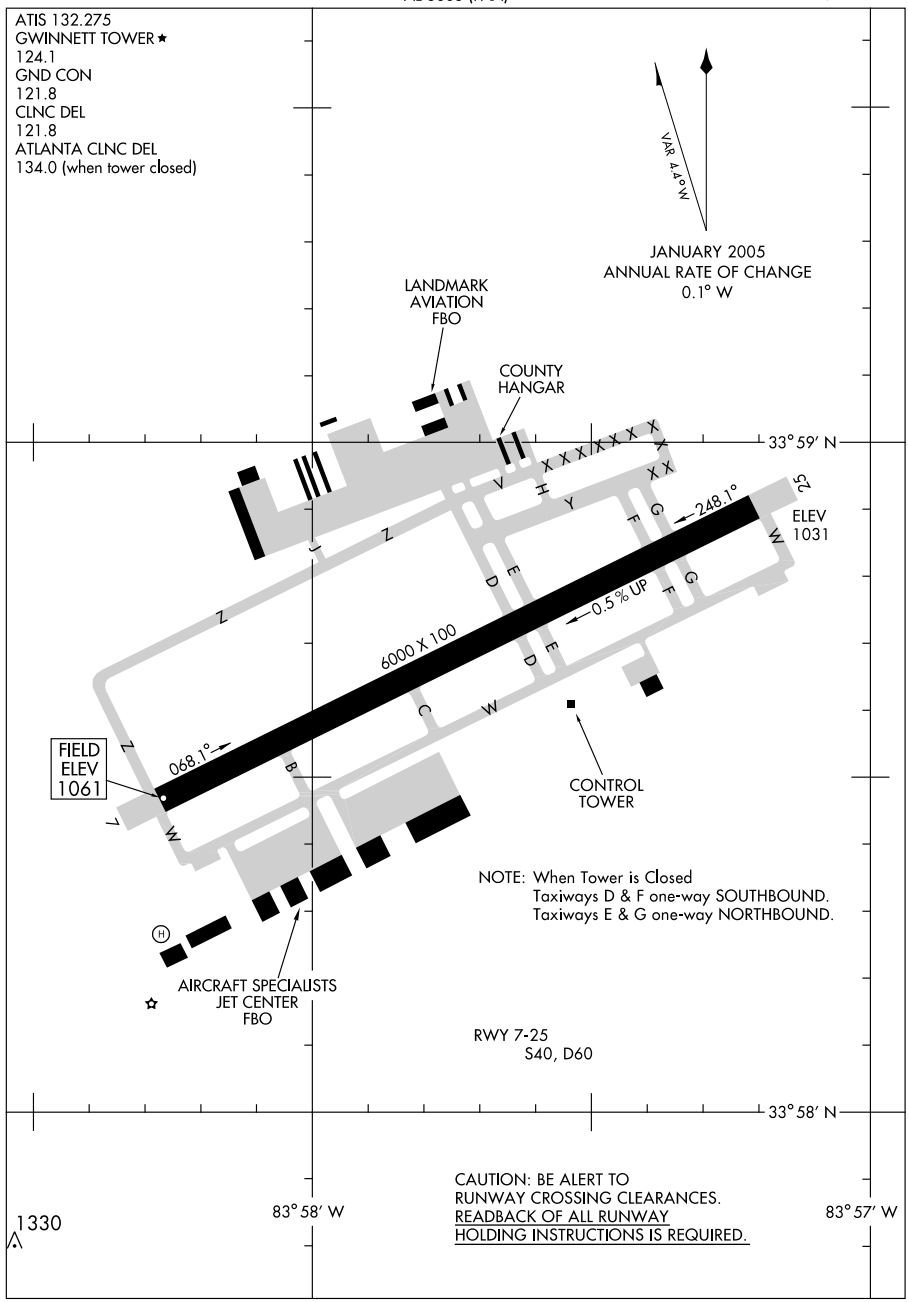
07130

AIRPORT DIAGRAM

LAWRENCEVILLE/GWINNETT COUNTY-BRISCOE FIELD (LZU)

AL-5385 (FAA)

LAWRENCEVILLE, GEORGIA



AIRPORT DIAGRAM

LAWRENCEVILLE, GEORGIA

LAWRENCEVILLE/GWINNETT COUNTY-BRISCOE FIELD (LZU)

07130

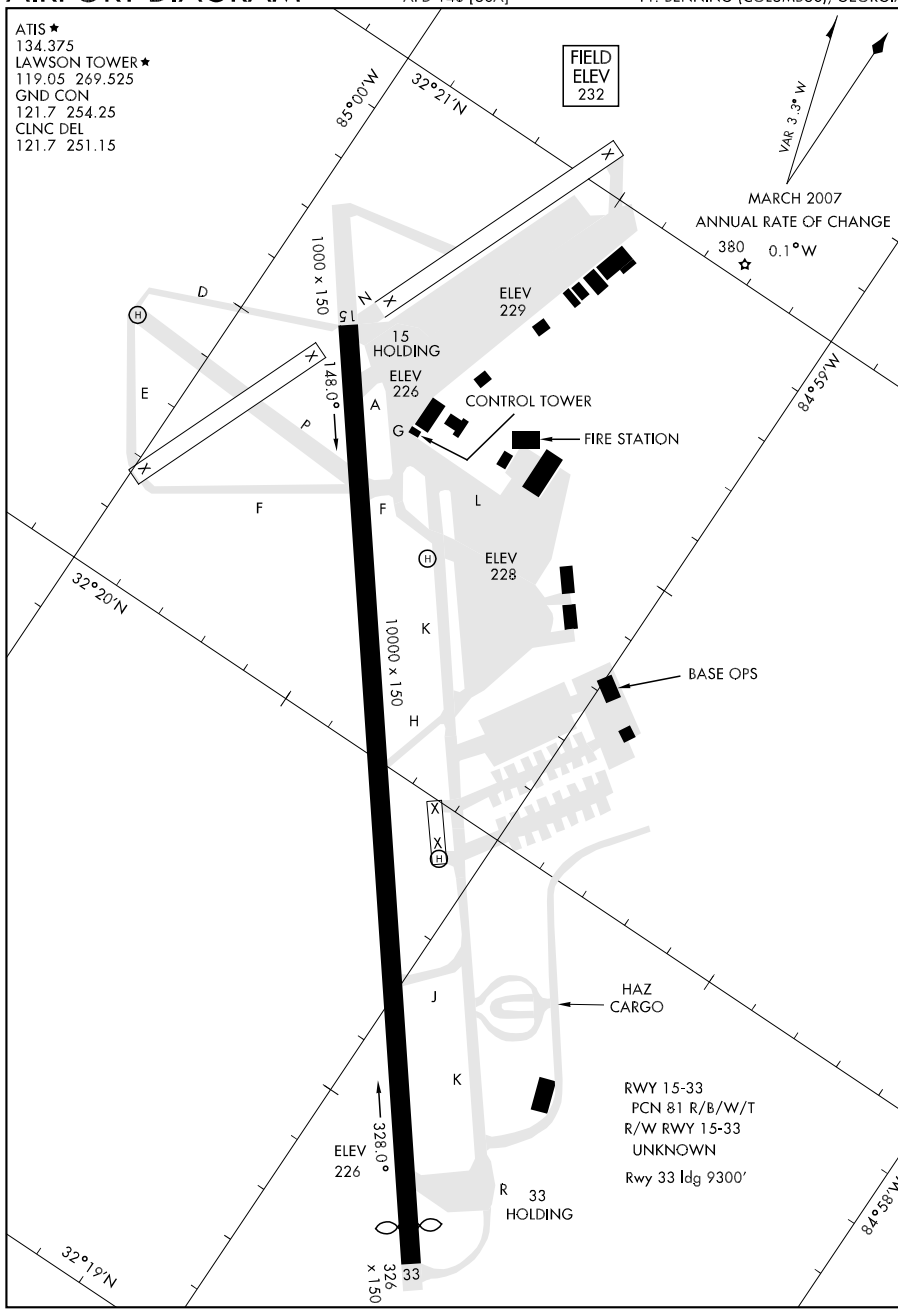
07074

AIRPORT DIAGRAM

AFD-146 [USA]

LAWSON AAF (KLSF)

FT. BENNING (COLUMBUS), GEORGIA



AIRPORT DIAGRAM

FT. BENNING (COLUMBUS), GEORGIA

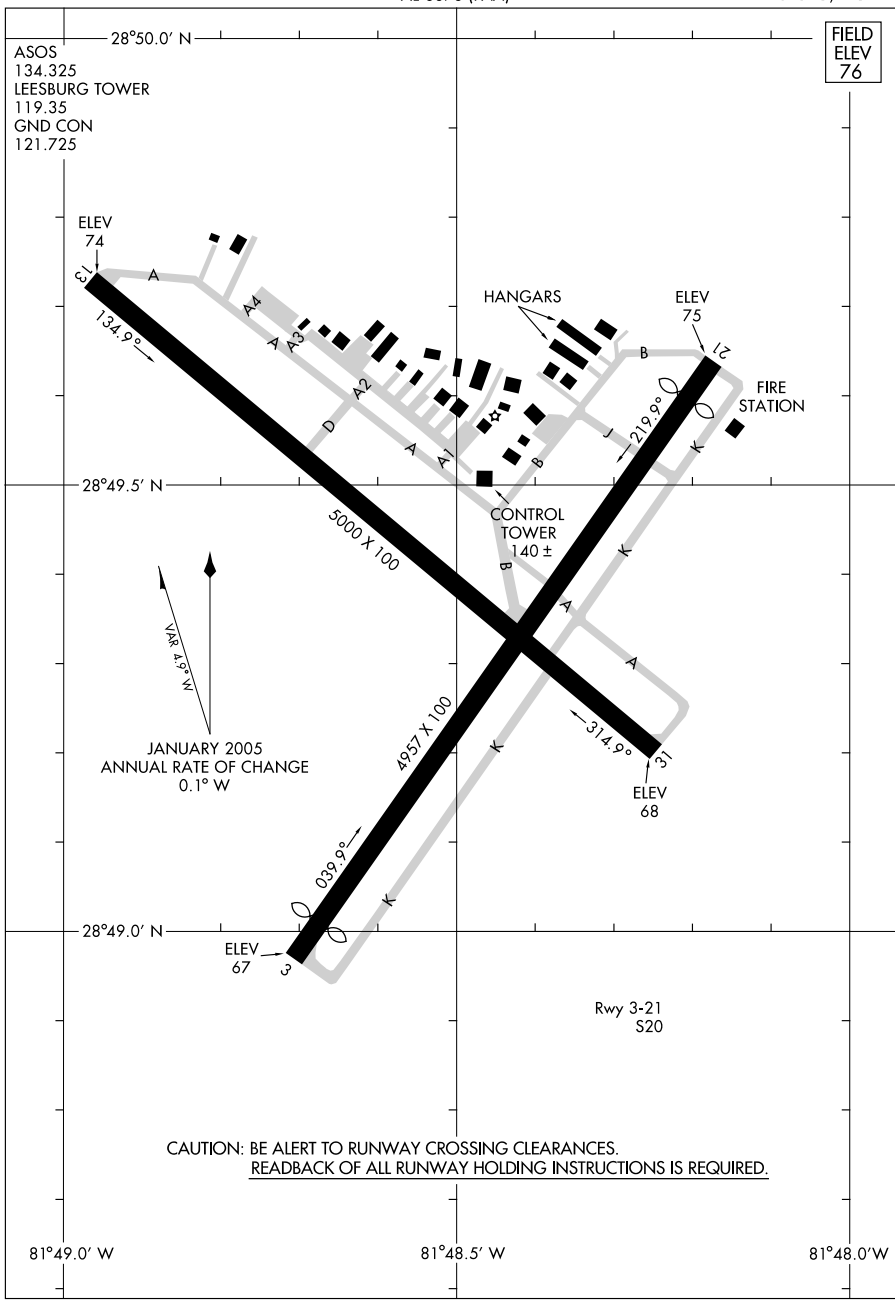
LAWSON AAF (KLSF)

09295

AIRPORT DIAGRAM

AL-6676 (FAA)

LEESBURG INTL (LEE)
LEESBURG, FLORIDA



AIRPORT DIAGRAM

09295

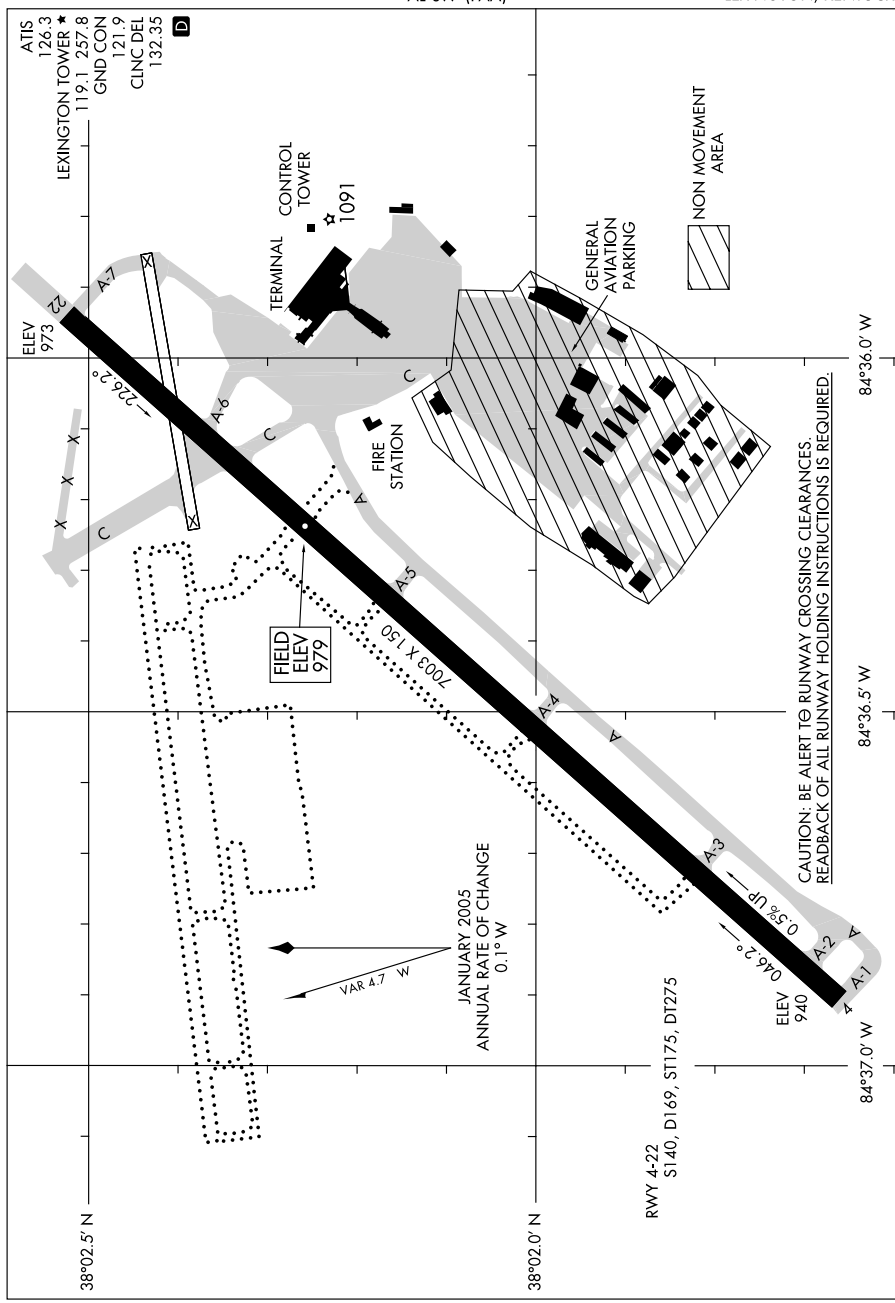
LEESBURG, FLORIDA
LEESBURG INTL (LEE)

09351

AIRPORT DIAGRAM

AL-697 (FAA)

LEXINGTON /BLUE GRASS (LEX)
LEXINGTON, KENTUCKY



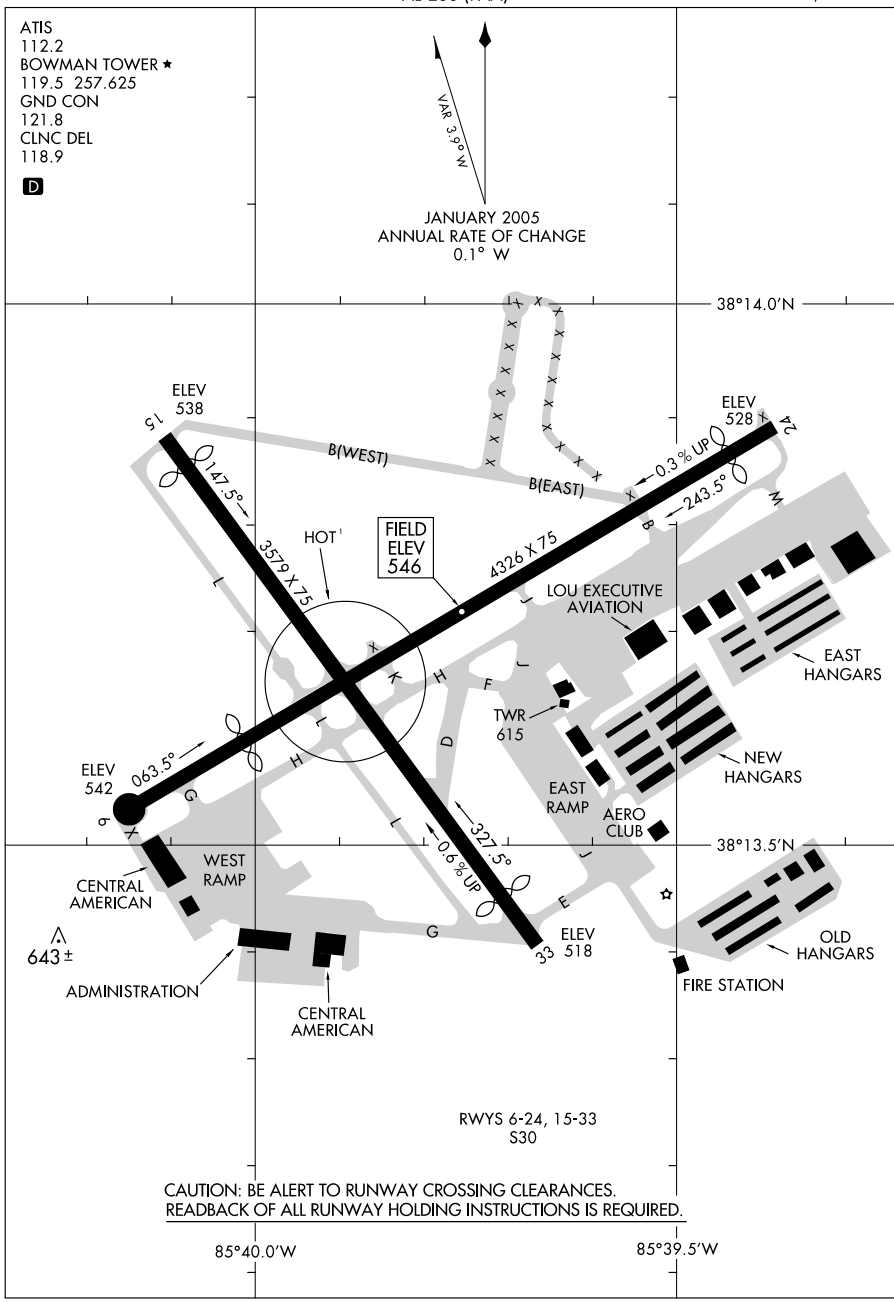
AIRPORT DIAGRAM
09351

LEXINGTON, KENTUCKY
LEXINGTON /BLUE GRASS (LEX)

10154

AIRPORT DIAGRAM

LOUISVILLE/BOWMAN FIELD (LOU)
LOUISVILLE, KENTUCKY



AIRPORT DIAGRAM
10154
LOUISVILLE, KENTUCKY
LOUISVILLE/BOWMAN FIELD (LOU)

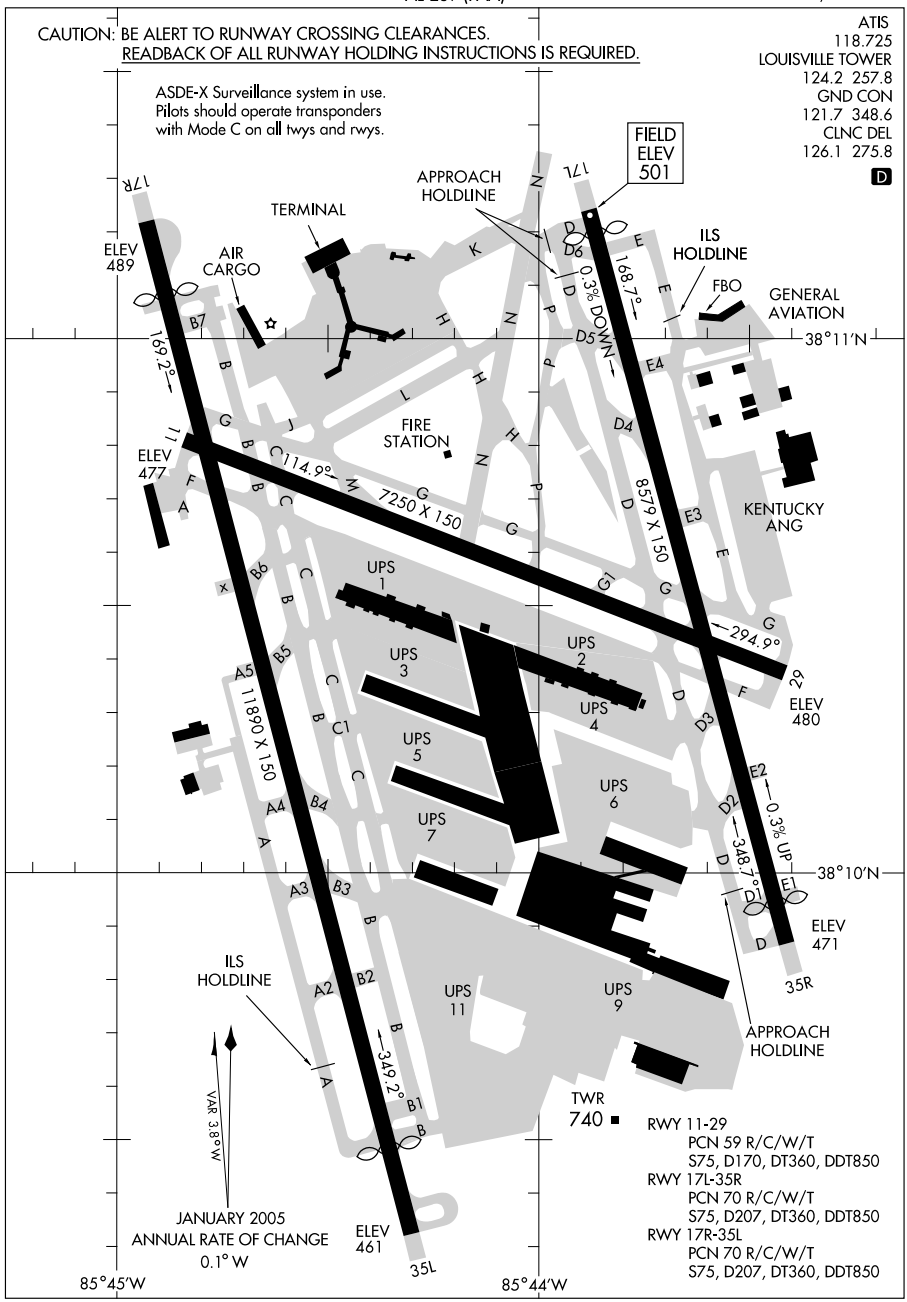
10098

AIRPORT DIAGRAM

LOUISVILLE INTL-STANDIFORD FIELD (SDF)

AL-239 (FAA)

LOUISVILLE, KENTUCKY



AIRPORT DIAGRAM

10098

LOUISVILLE, KENTUCKY

LOUISVILLE INTL-STANDIFORD FIELD (SDF)

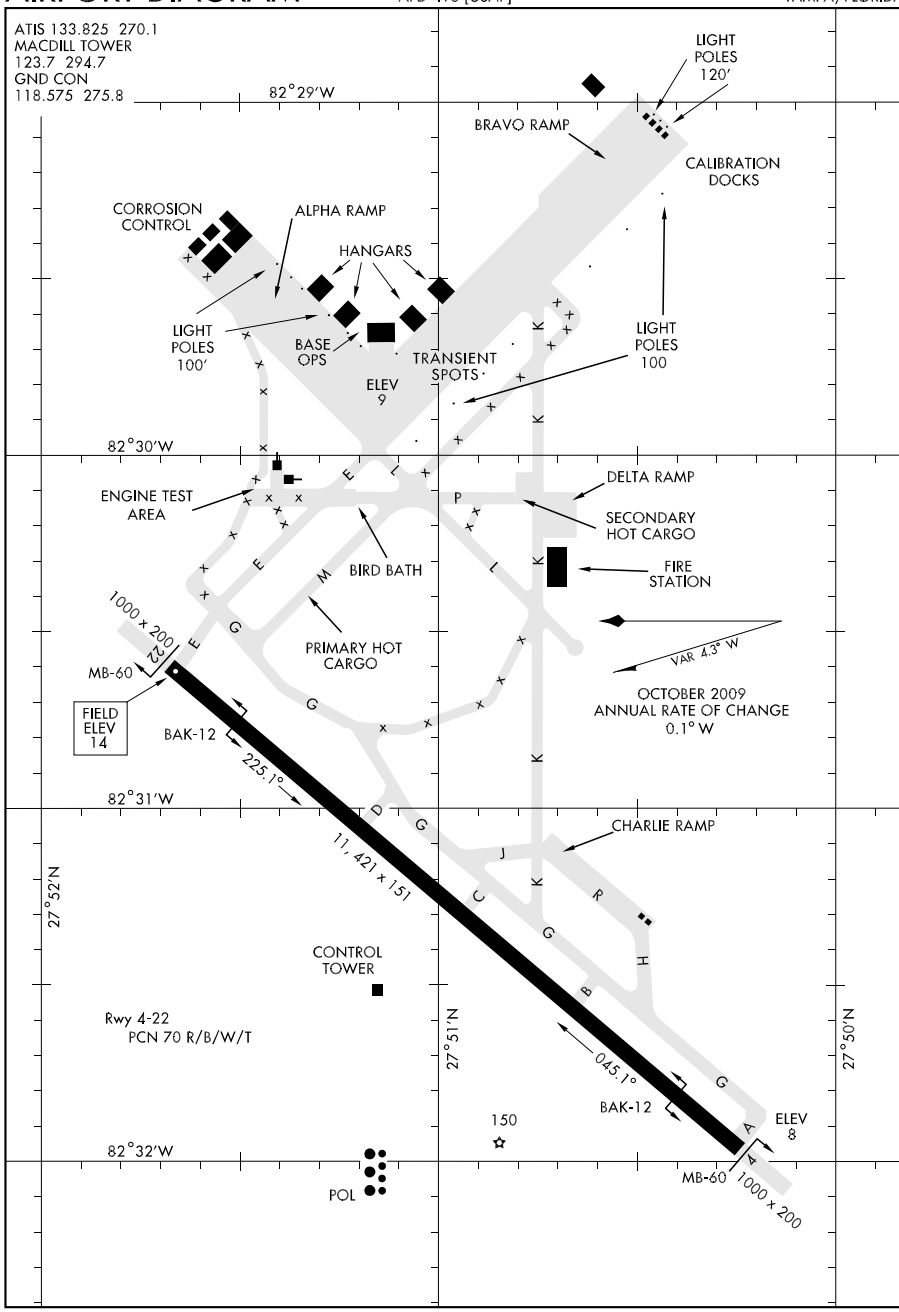
09295

AIRPORT DIAGRAM

MACDILL AFB (KMCF)

AFD-418 [USAF]

TAMPA, FLORIDA



AIRPORT DIAGRAM

TAMPA, FLORIDA

MACDILL AFB (KMCF)

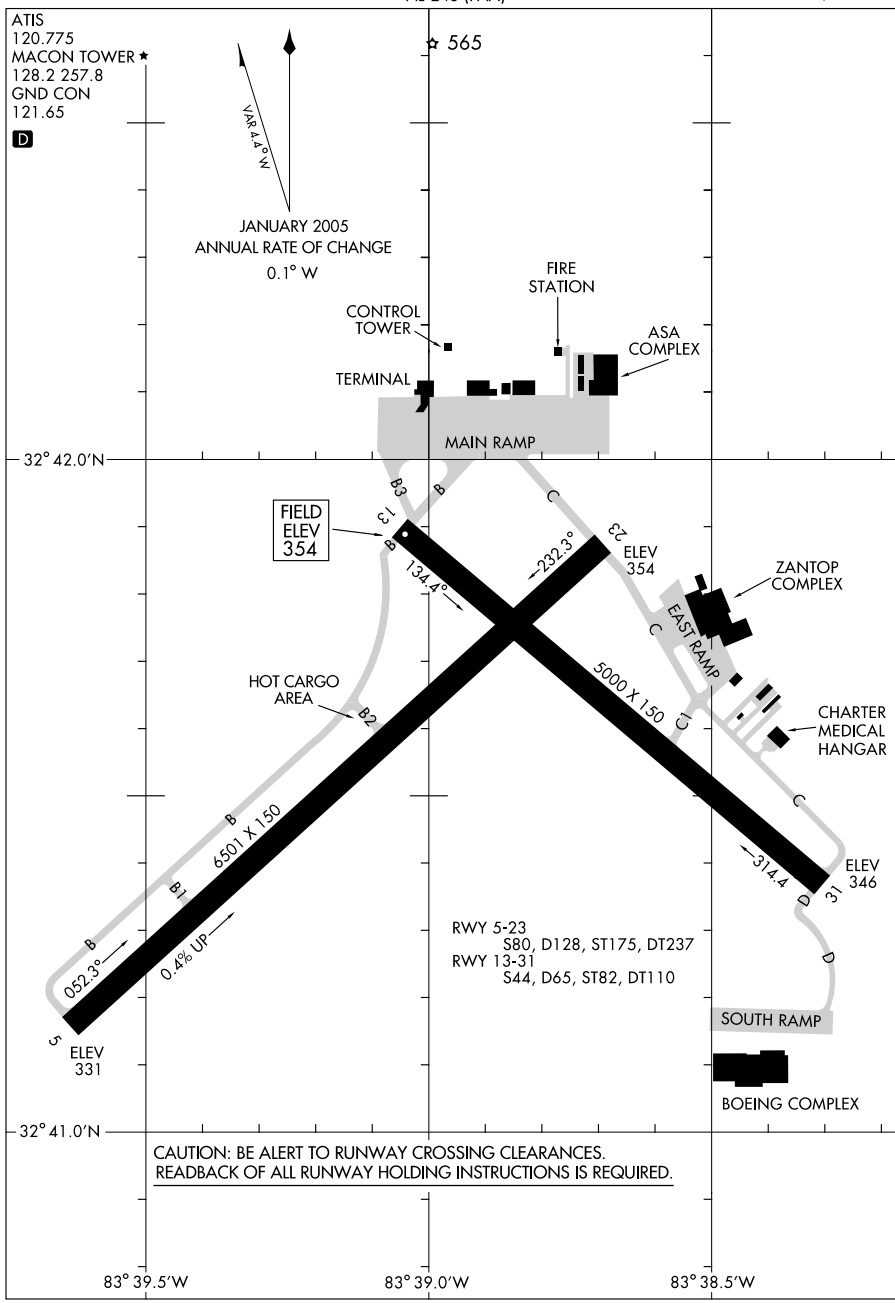
09351

AIRPORT DIAGRAM

MACON/ MIDDLE GEORGIA RGNL (MCN)

AL-243 (FAA)

MACON, GEORGIA



AIRPORT DIAGRAM

09351

MACON, GEORGIA

MACON/ MIDDLE GEORGIA RGNL (MCN)

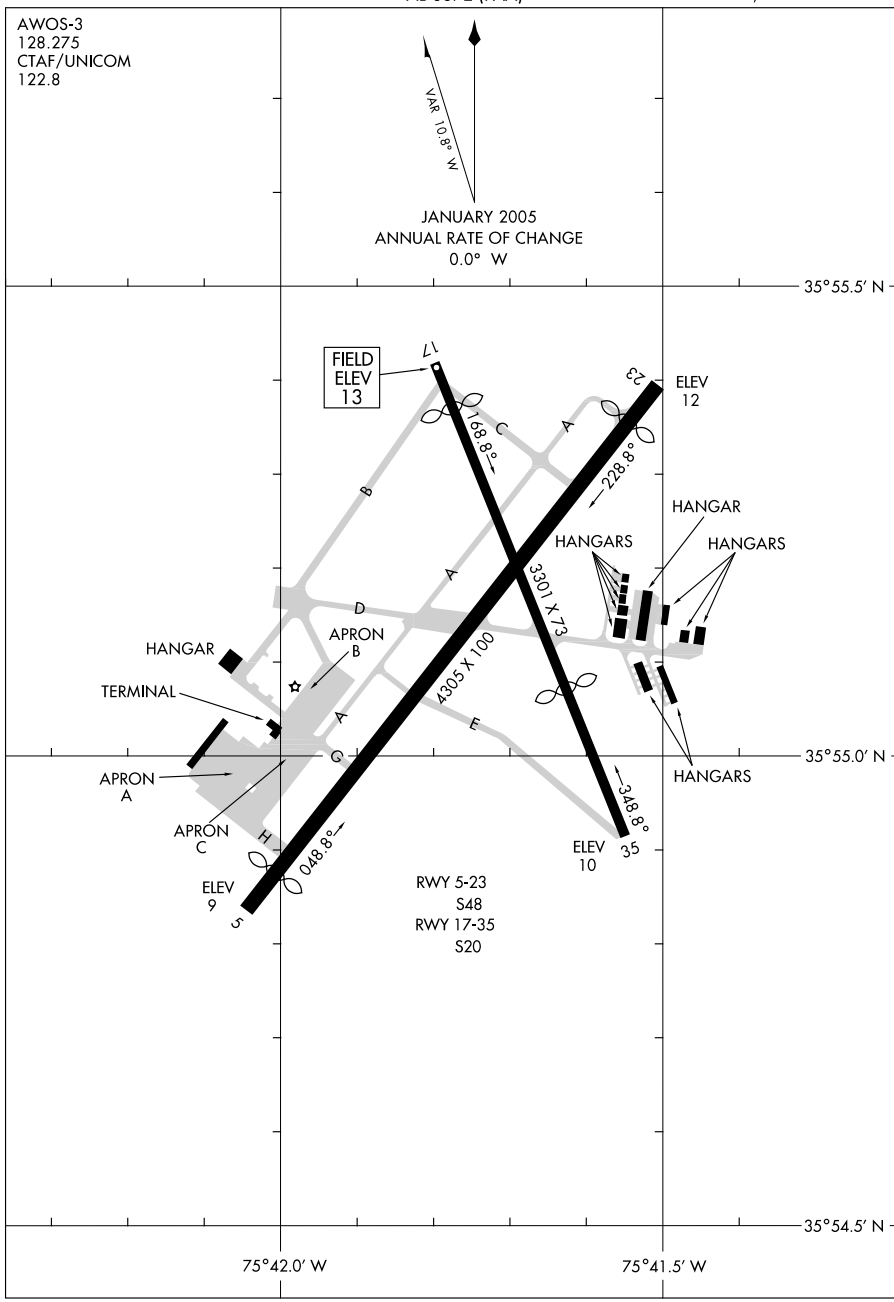
09239

AIRPORT DIAGRAM

MANTEO/ DARE COUNTY RGNL (MQI)

AL-6372 (FAA)

MANTEO, NORTH CAROLINA



AIRPORT DIAGRAM

09239

MANTEO, NORTH CAROLINA

MANTEO/ DARE COUNTY RGNL (MQI)

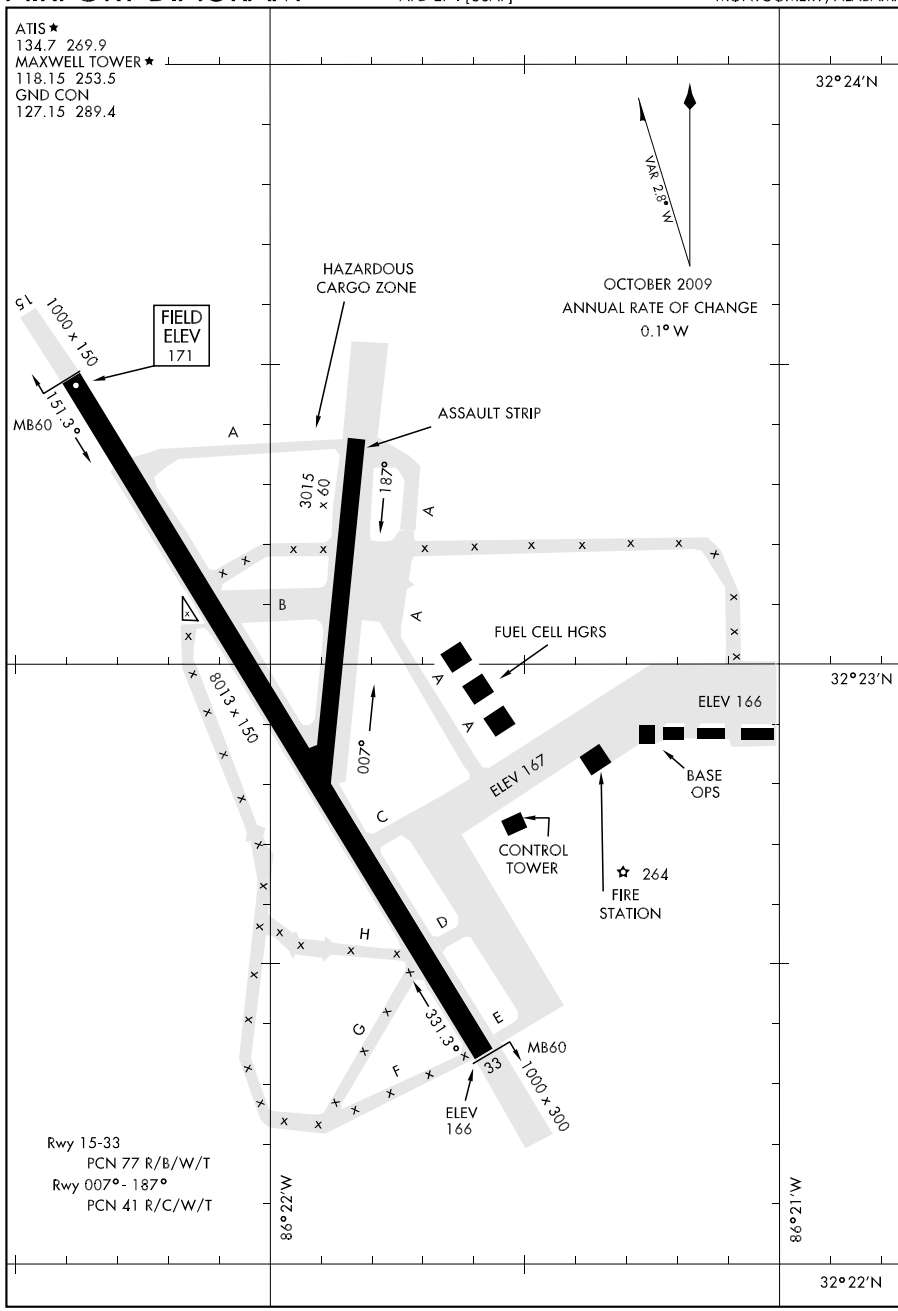
09295

AIRPORT DIAGRAM

AFD-274 [USAF]

MAXWELL AFB (KMXF)

MONTGOMERY, ALABAMA



AIRPORT DIAGRAM

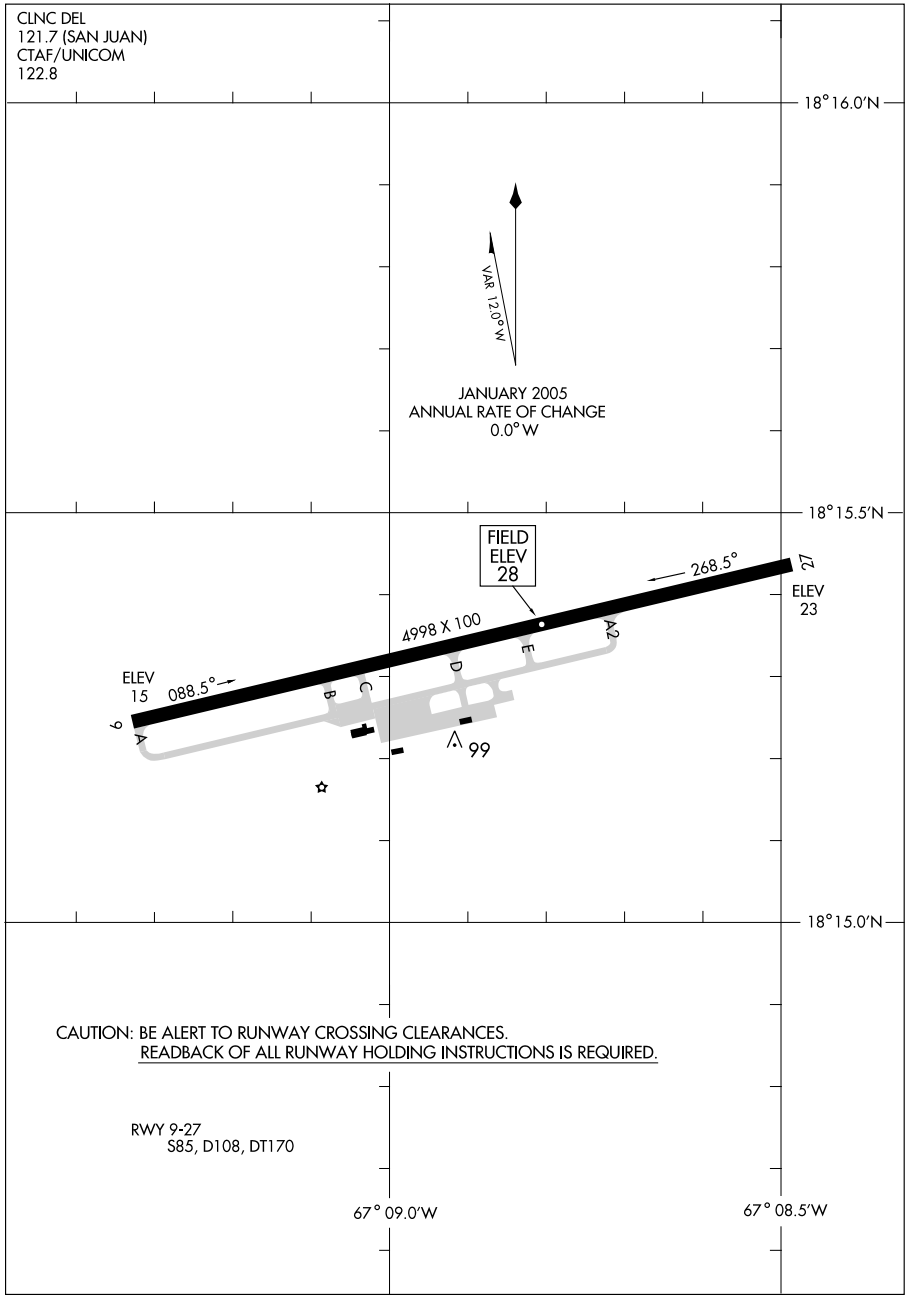
MONTGOMERY, ALABAMA

MAXWELL AFB (KMXF)

07074

AIRPORT DIAGRAM

MAYAGUEZ/EUGENIO MARIA DE HOSTOS (MAZ)(TJMZ)
AL-5328 (FAA)
MAYAGUEZ, PUERTO RICO



AIRPORT DIAGRAM

07074

MAYAGUEZ, PUERTO RICO
MAYAGUEZ/EUGENIO MARIA DE HOSTOS (MAZ)(TJMZ)

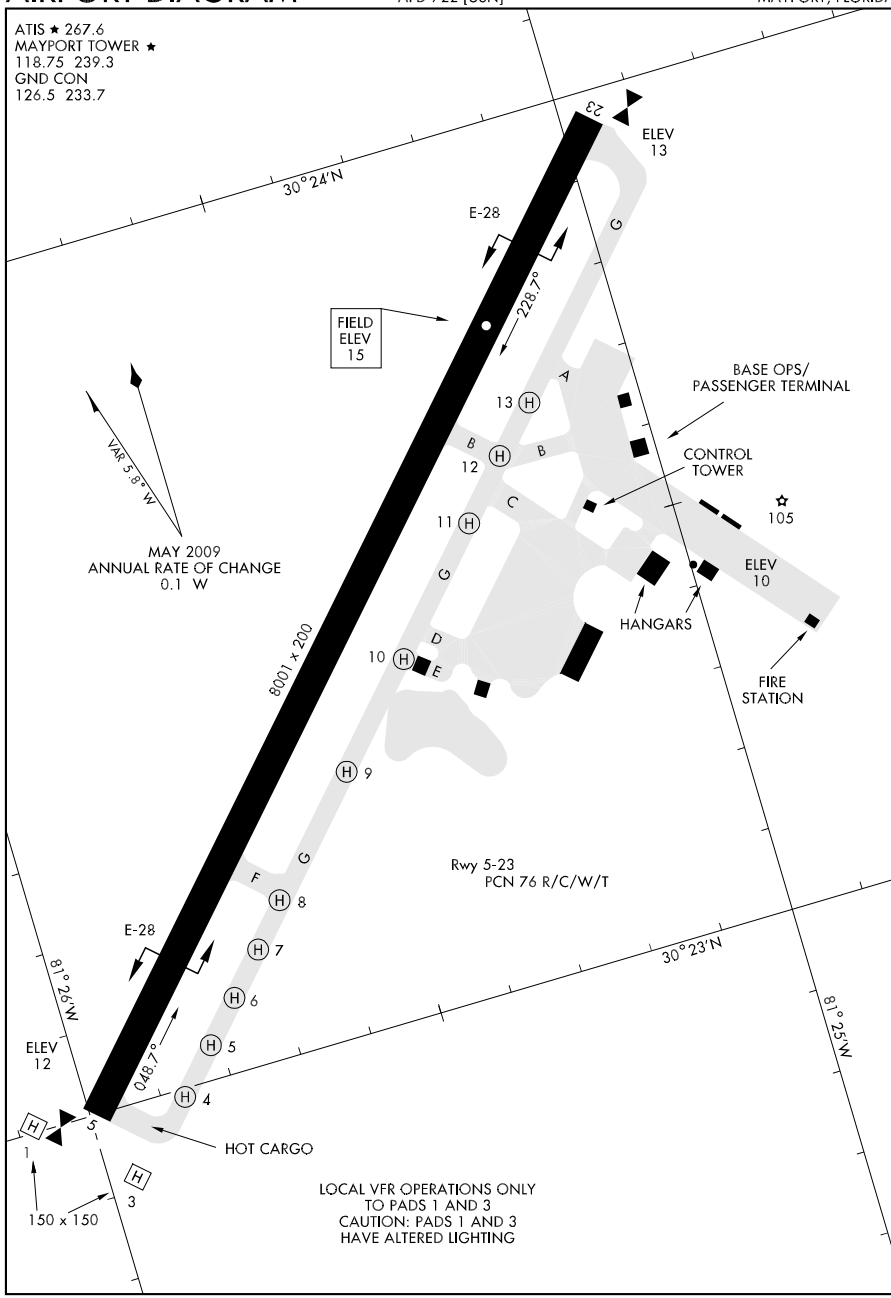
09127

AIRPORT DIAGRAM

MAYPORT NS (ADM DAVID L. MCDONALD FLD) (KNRB)

AFD-722 [USN]

MAYPORT, FLORIDA



AIRPORT DIAGRAM

MAYPORT, FLORIDA

MAYPORT NS (ADM DAVID L. MCDONALD FLD) (KNRB)

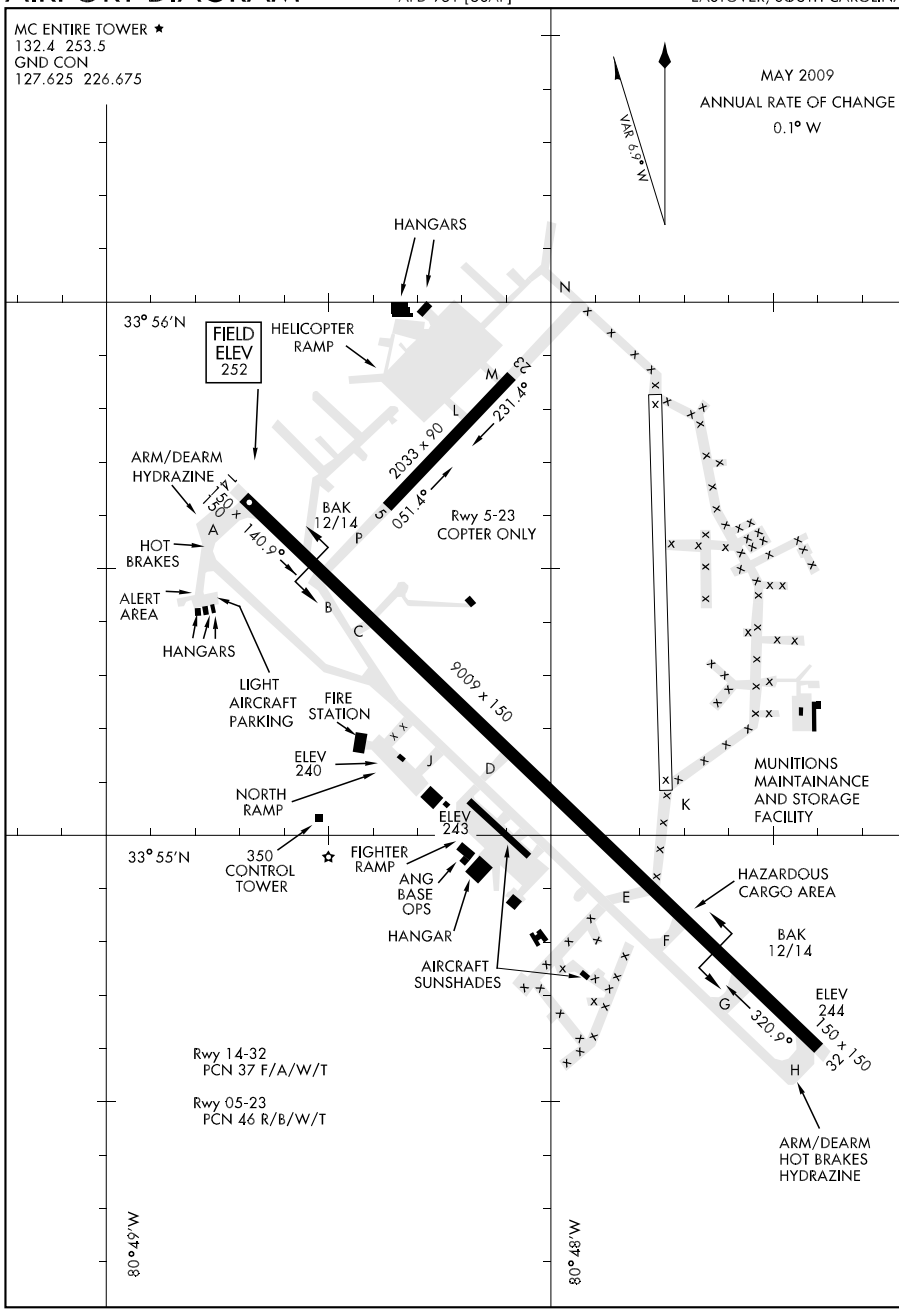
09127

AIRPORT DIAGRAM

AFD-951 [USAF]

MC ENTIRE JNGB (KMMT)

EASTOVER, SOUTH CAROLINA



AIRPORT DIAGRAM

EASTOVER, SOUTH CAROLINA

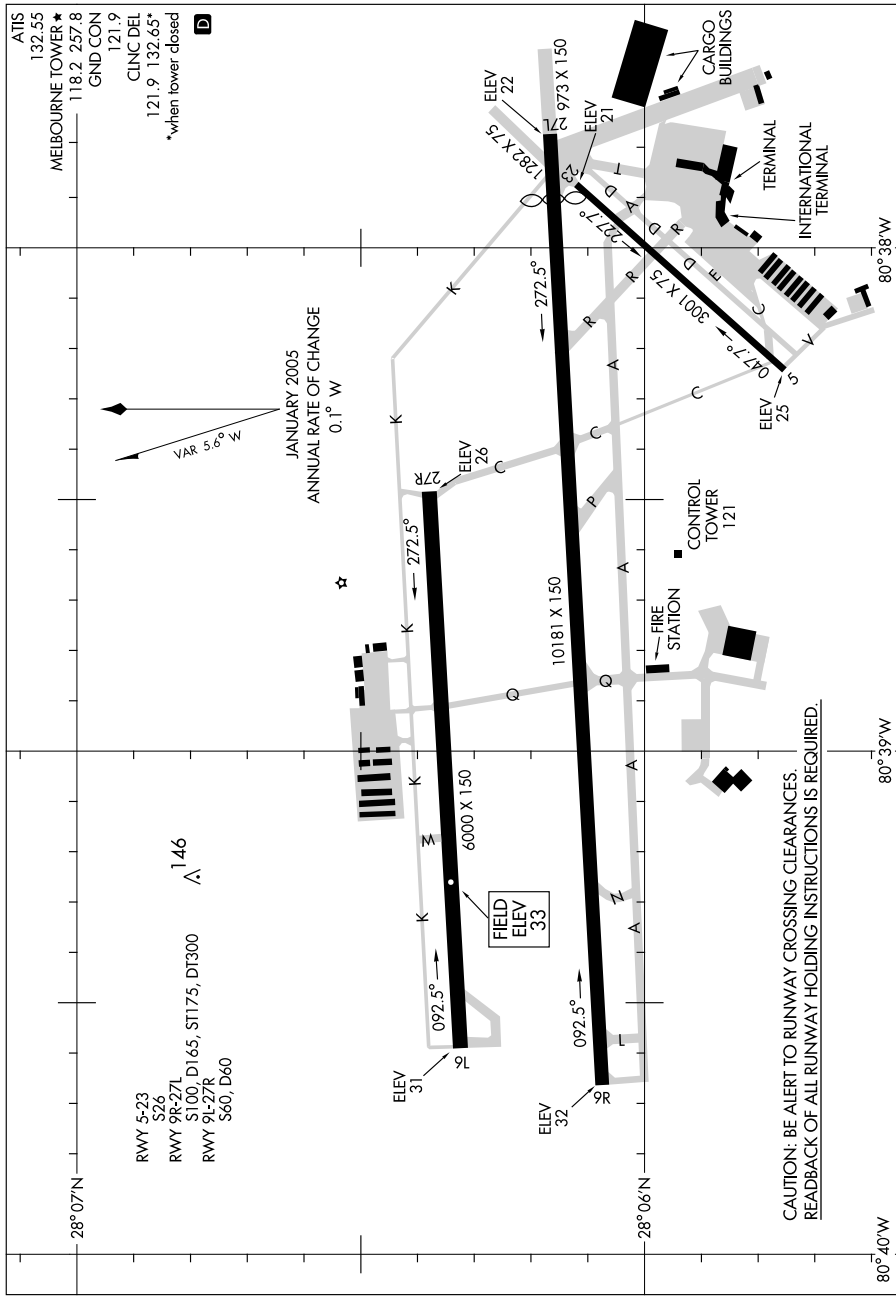
MC ENTIRE JNGB (KMMT)

09015

AIRPORT DIAGRAM

MELBOURNE INTL (MLB)
MELBOURNE, FLORIDA

AL-252 (FAA)



AIRPORT DIAGRAM

MELBOURNE, FLORIDA
MELBOURNE INTL (MLB)

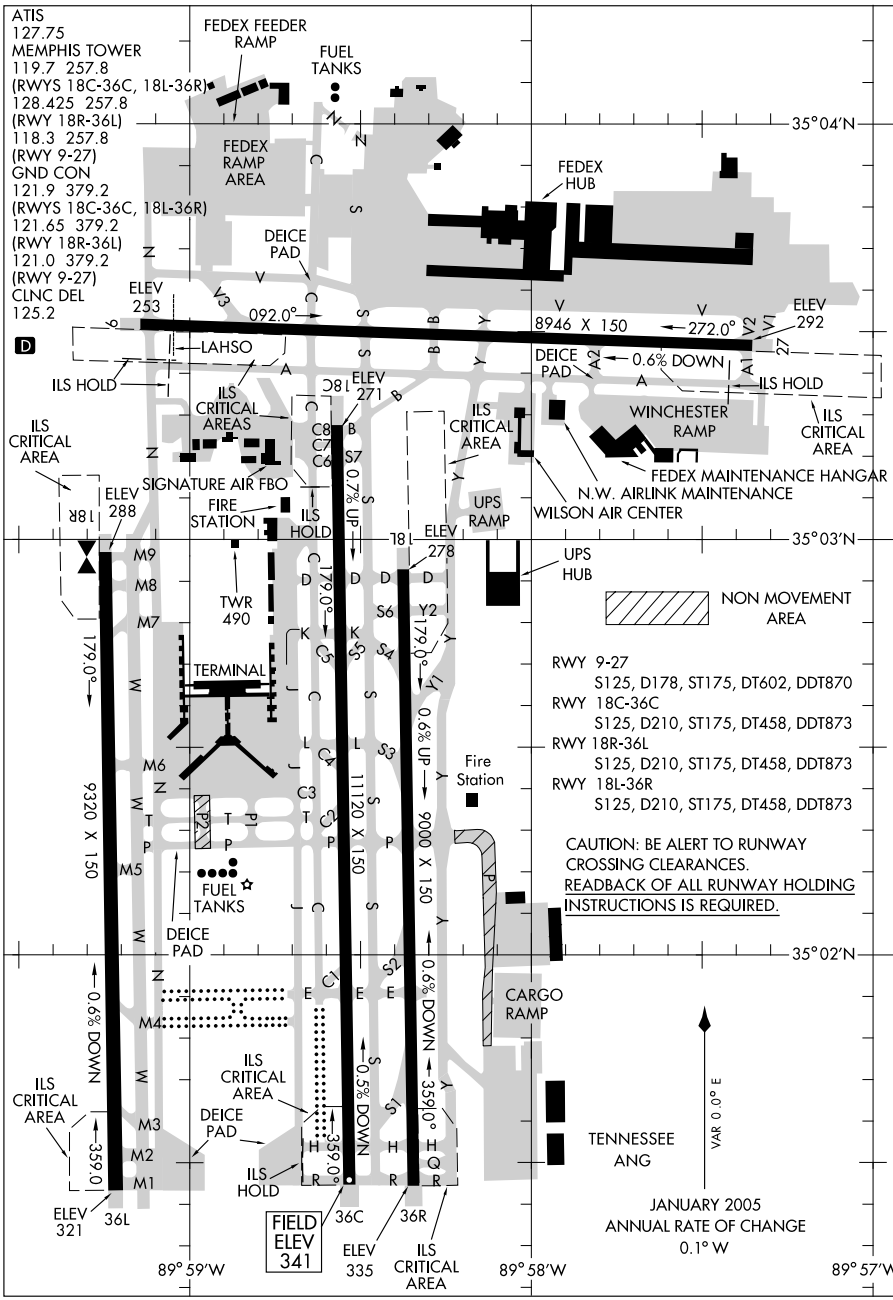
09015

10098

AIRPORT DIAGRAM

AL-253 (FAA)

MEMPHIS INTL (MEM)
MEMPHIS, TENNESSEE



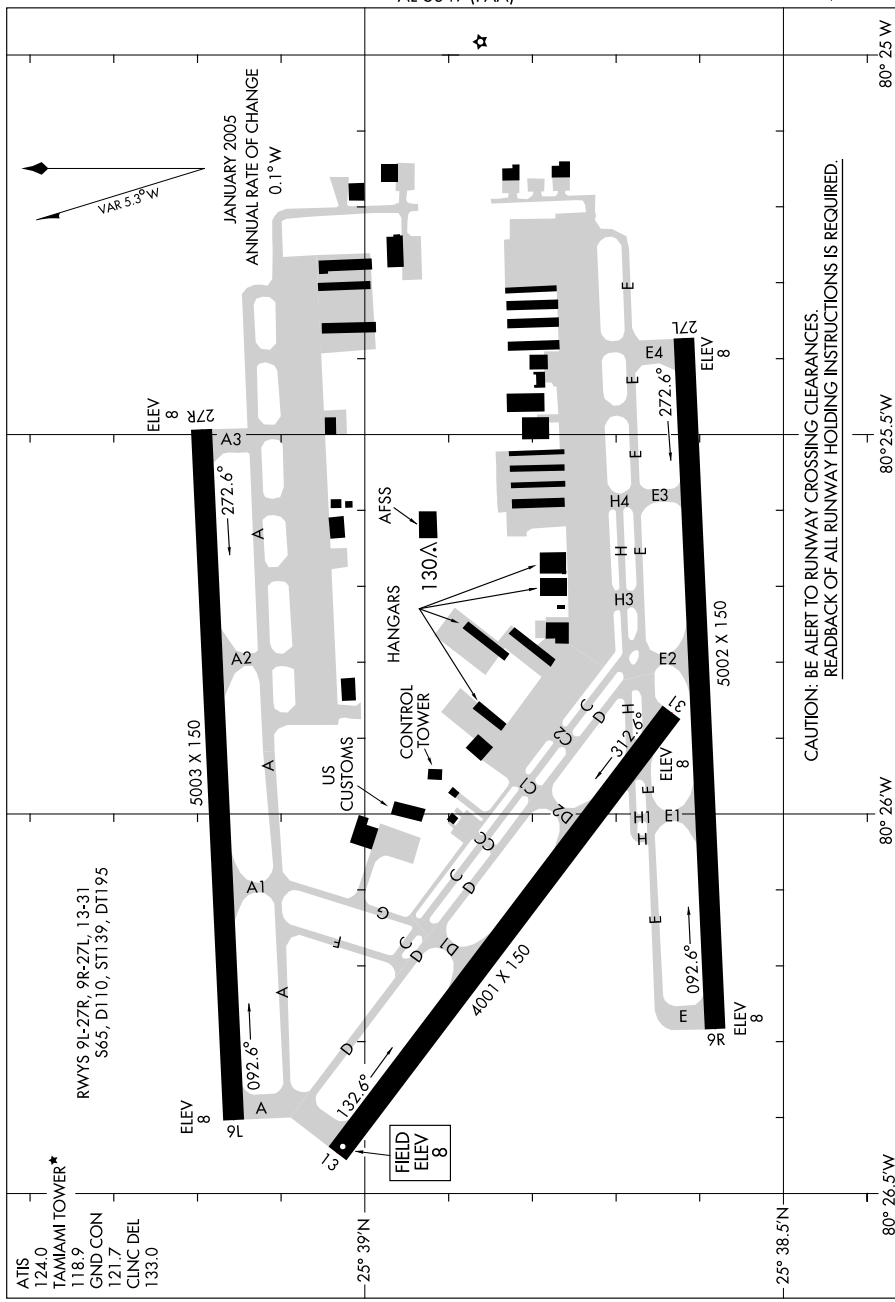
AIRPORT DIAGRAM
10098

MEMPHIS, TENNESSEE
MEMPHIS INTL (MEM)

09351

AIRPORT DIAGRAM

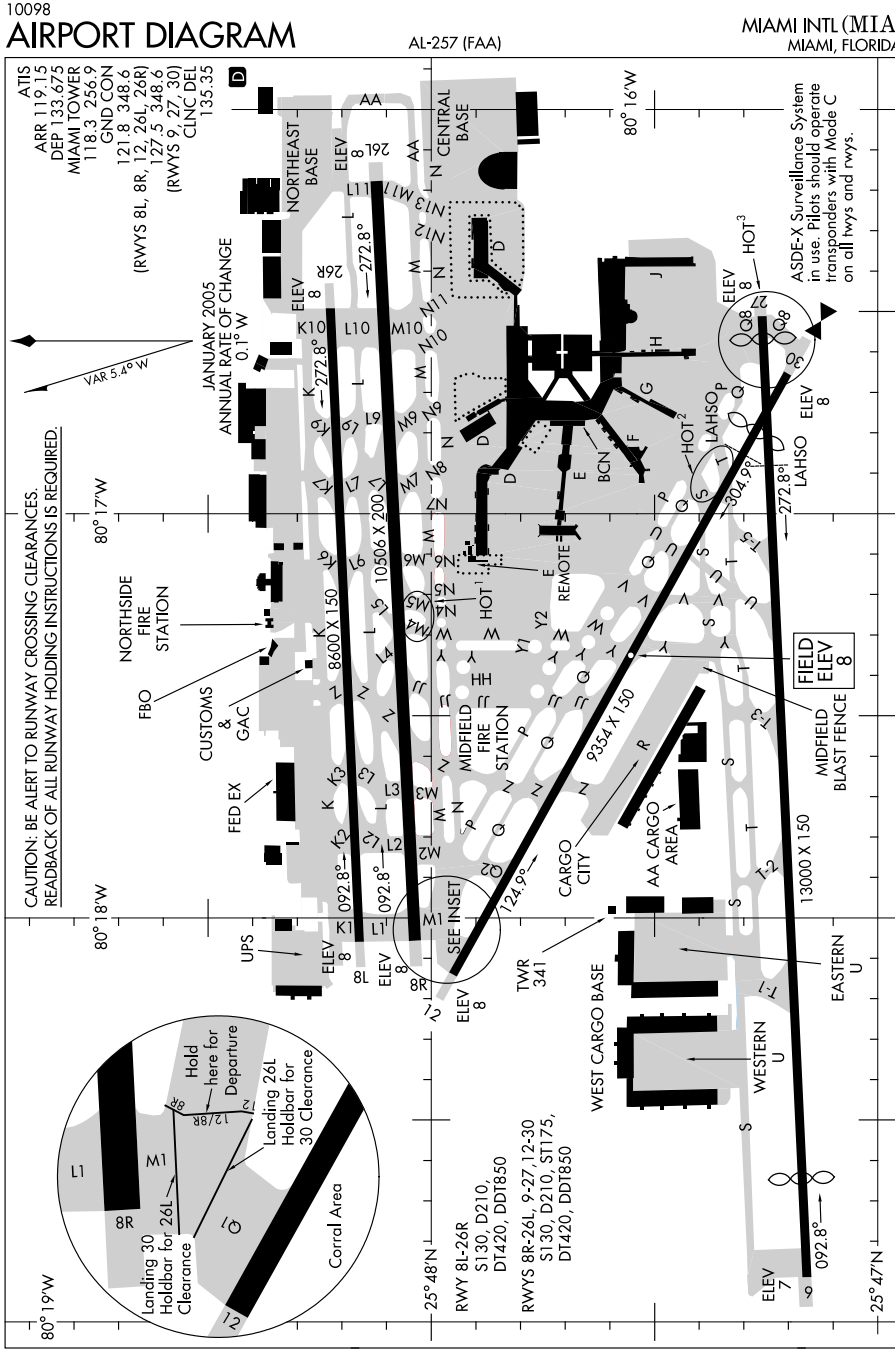
MIAMI/KENDALL-TAMIAMI EXECUTIVE (TMB)
MIAMI, FLORIDA
AL-5349 (FAA)



AIRPORT DIAGRAM

MIAMI, FLORIDA
MIAMI/ KENDALL-TAMIAMI EXECUTIVE (TMB)

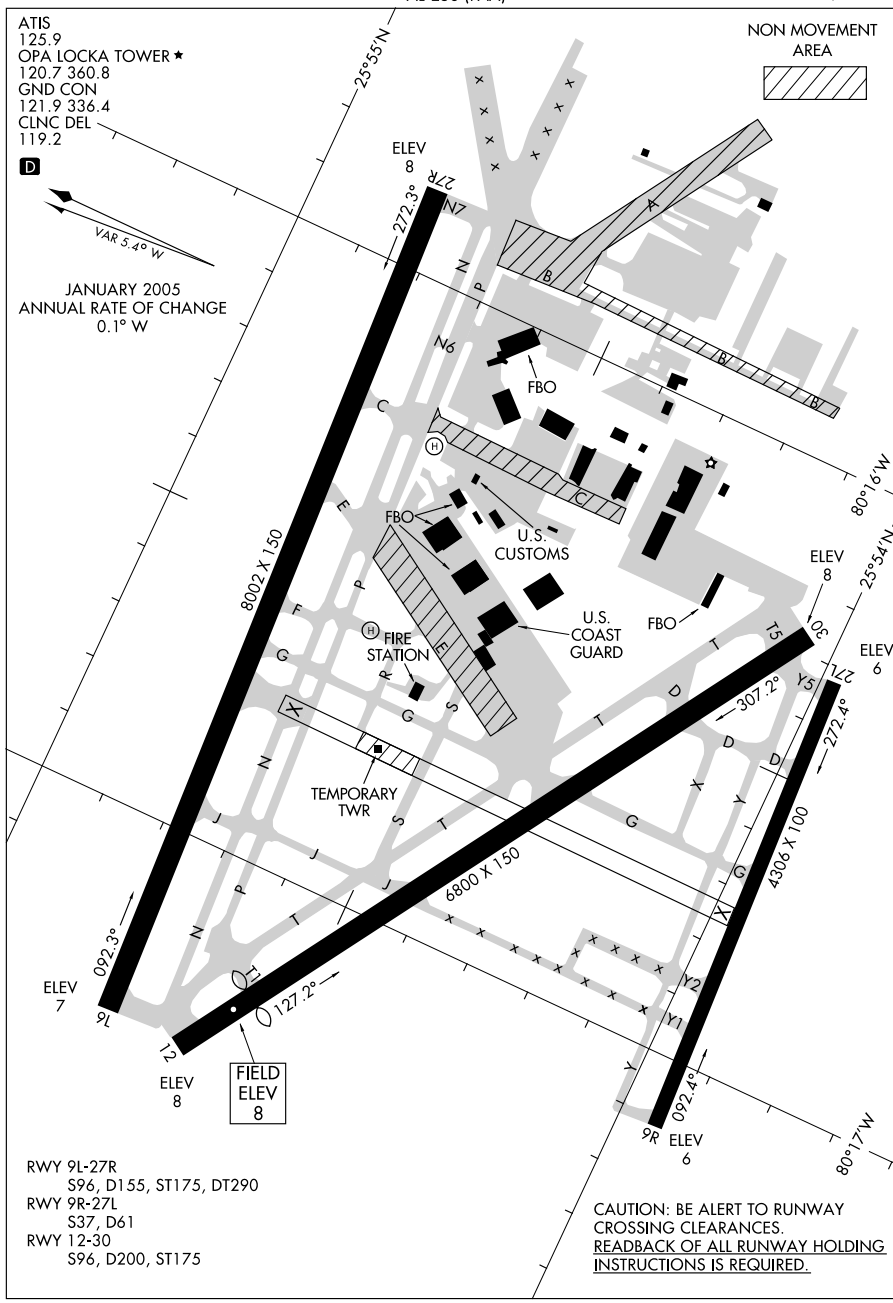
09351


10098
AIRPORT DIAGRAM
AL-257 (FAA)
MIAMI INTL (MIA)
MIAMI, FLORIDA
ATIS
ARR 119.15
DEP 133.675
MIAMI TOWER
118.3 256.9
GND CON
121.8 348.6
(RWYS 8L, 8R, 12, 26L, 26R)
127.5 348.6
(RWYS 9, 27, 30)
CLNC DEL
135.35
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1° W
VAR 5.4° W
ASDE-X Surveillance System in use. Pilots should operate transponders with Mode C on all twys and rwys.
NORTHEAST BASE
CENTRAL BASE
NORTHSIDE FIRE STATION
FBO
CUSTOMS & GAC
FED EX
UPS
MIDFIELD FIRE STATION
CARGO CITY
AA CARGO AREA
WEST CARGO BASE
TWR 341
EASTERN
WESTERN
MIDFIELD BLAST FENCE
FIELD ELEV 8
LAHSO
HOT
BCN
REMOTE
SEE INSET
10506 X 200
8600 X 150
9354 X 150
13000 X 150
272.8°
092.8°
304.9°
124.9°
261°
Hold here for Departure
Landing 26L Holdbar for 30 Clearance
Landing 30 Holdbar for 26L Clearance
Corral Area
RWY 8L-26R
S130, D210,
DT420, DDT850
RWYS 8R-26L, 9-27, 12-30
S130, D210, ST175,
DT420, DDT850
80° 19'W
80° 18'W
80° 17'W
80° 16'W
25° 48'N
25° 47'N
AIRPORT DIAGRAM
10098
MIAMI, FLORIDA
MIAMI INTL (MIA)

10098

AIRPORT DIAGRAM

MIAMI/OPA LOCKA EXECUTIVE (OPF)
MIAMI, FLORIDA



AIRPORT DIAGRAM

10098

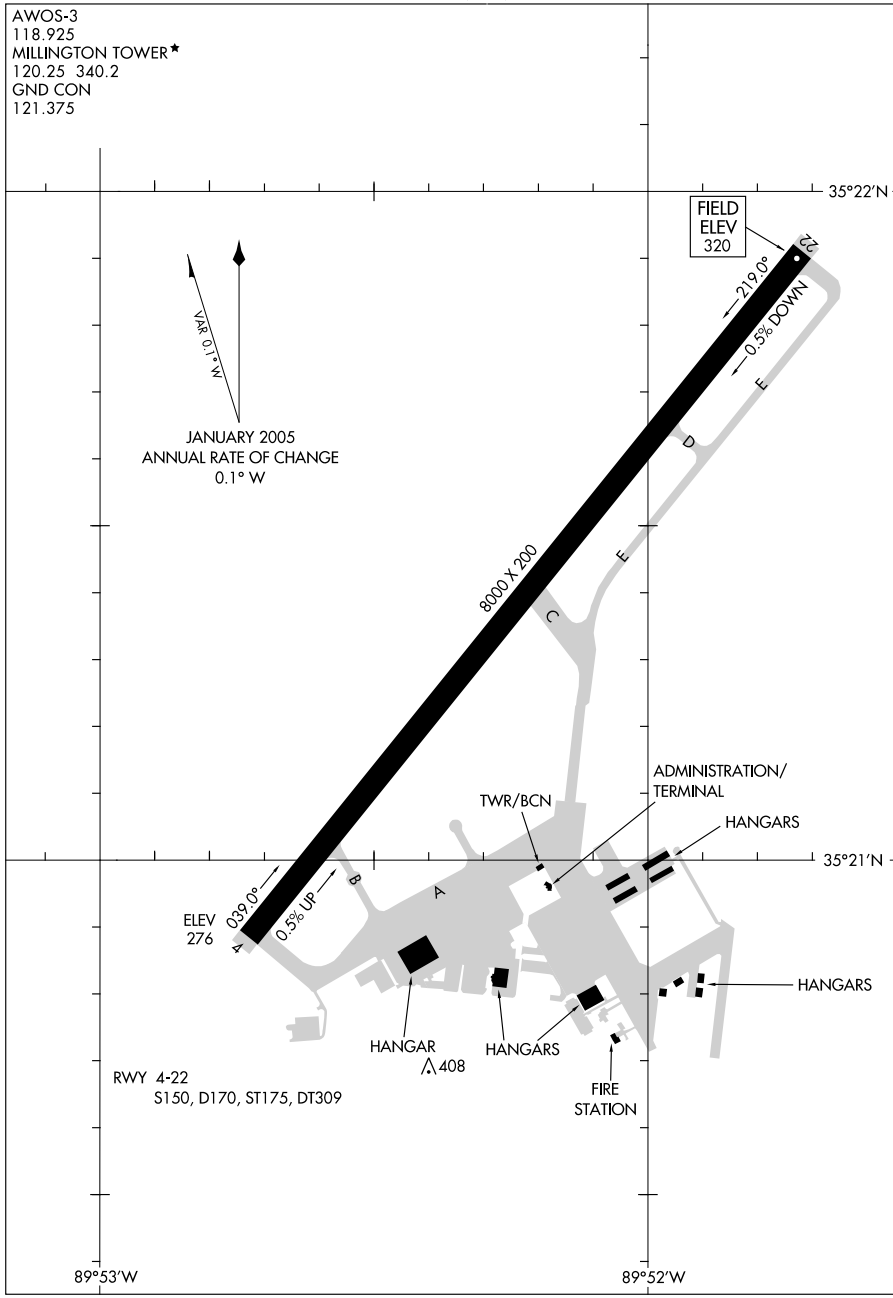
MIAMI, FLORIDA
MIAMI/OPA LOCKA EXECUTIVE (OPF)

10154

AIRPORT DIAGRAM

AL-910 (FAA)

MILLINGTON RGNL JETPORT (NQA)
MILLINGTON, TENNESSEE



AIRPORT DIAGRAM

10154

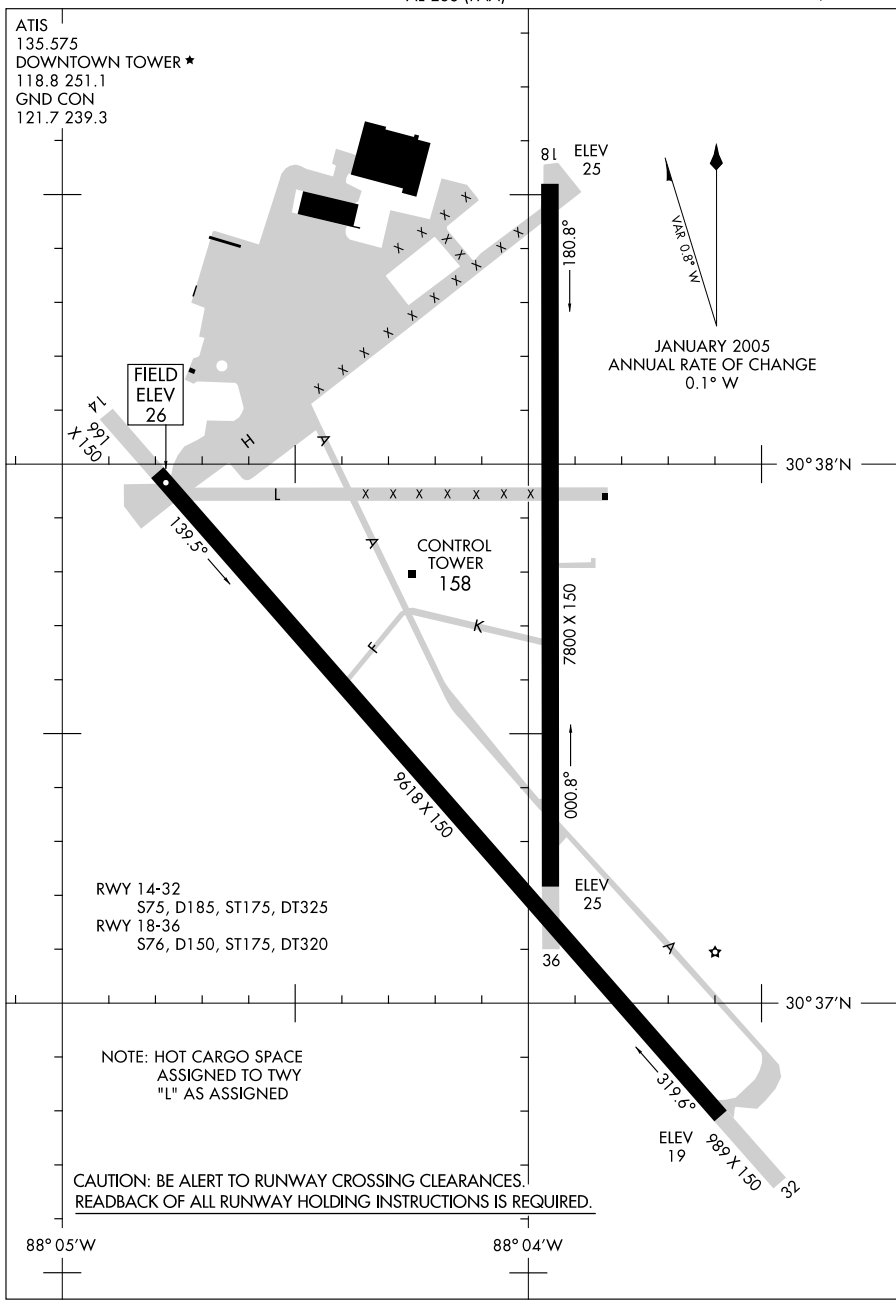
MILLINGTON, TENNESSEE
MILLINGTON RGNL JETPORT (NQA)

07298

AIRPORT DIAGRAM

AL-268 (FAA)

MOBILE DOWNTOWN (BFM)
MOBILE, ALABAMA



AIRPORT DIAGRAM

07298

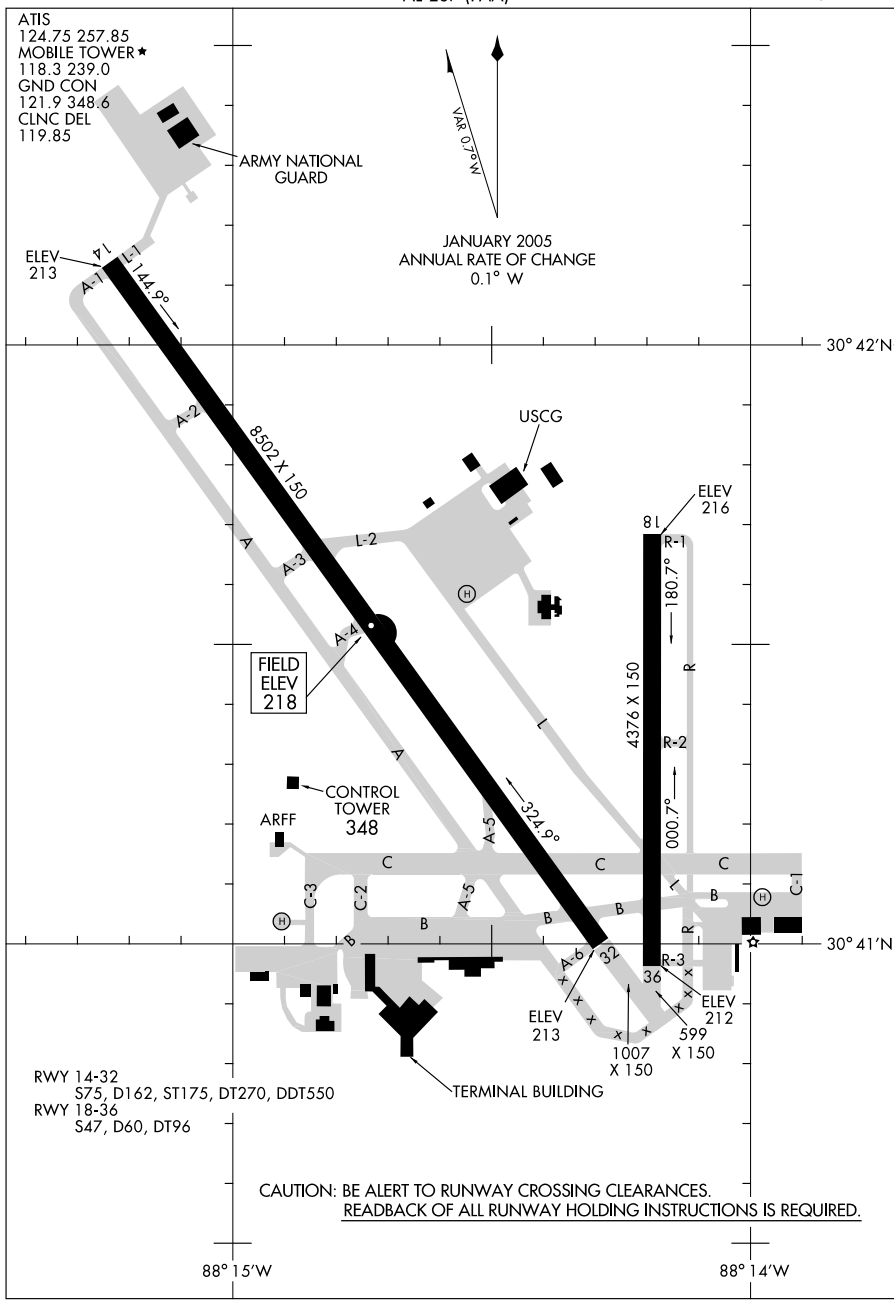
MOBILE, ALABAMA
MOBILE DOWNTOWN (BFM)

08101

AIRPORT DIAGRAM

MOBILE RGNL (MOB)
MOBILE, ALABAMA

AL-267 (FAA)



AIRPORT DIAGRAM

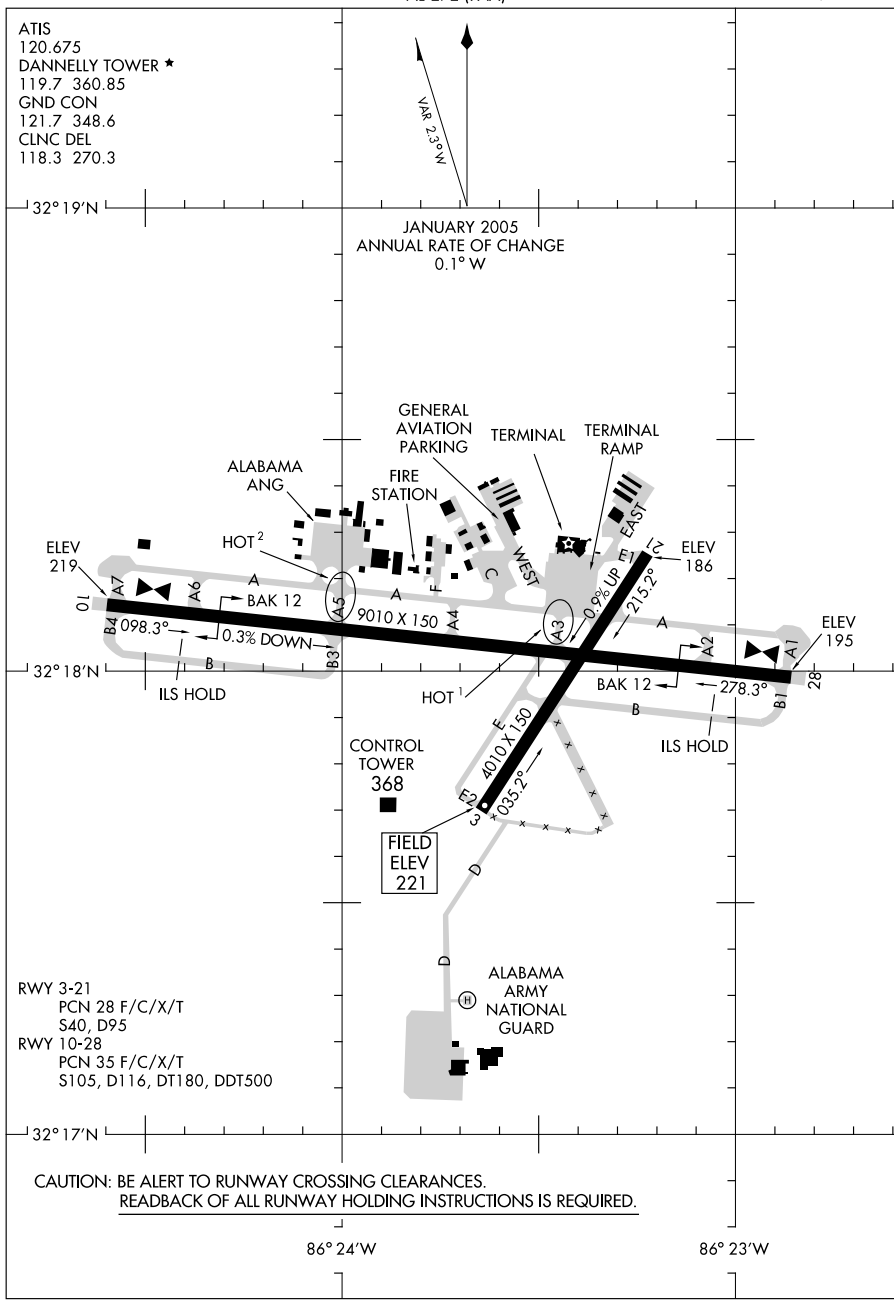
08101

MOBILE, ALABAMA
MOBILE RGNL (MOB)

09071

AIRPORT DIAGRAM

MONTGOMERY RGNL (DANNELLY FIELD)(MGM)
MONTGOMERY, ALABAMA



AIRPORT DIAGRAM

09071

MONTGOMERY, ALABAMA
MONTGOMERY RGNL (DANNELLY FIELD)(MGM)

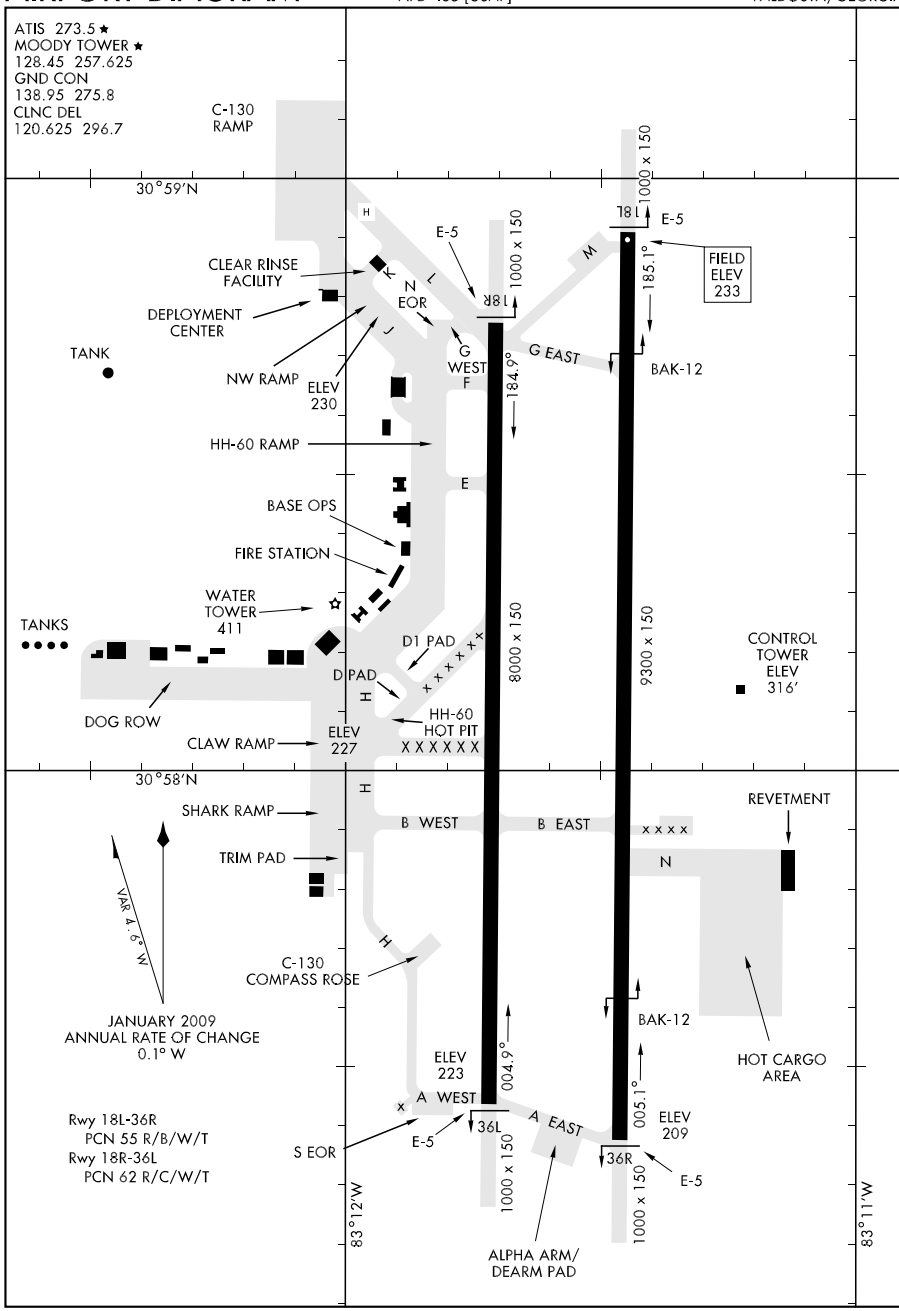
09015

AIRPORT DIAGRAM

MOODY AFB (KVAD)

AFD-435 [USAF]

VALDOSTA, GEORGIA



AIRPORT DIAGRAM

VALDOSTA, GEORGIA

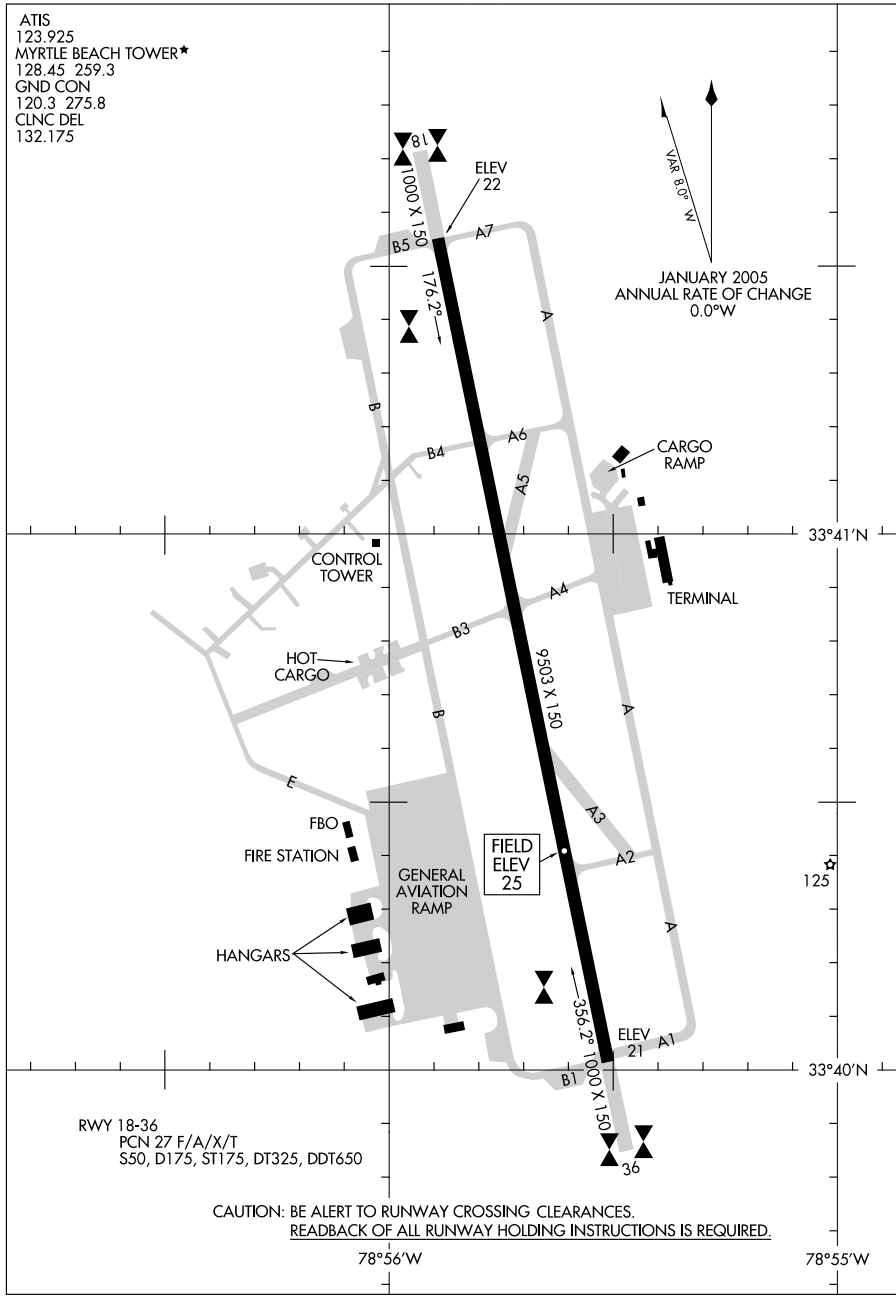
MOODY AFB (KVAD)

09351

AIRPORT DIAGRAM

MYRTLE BEACH INTL (MYR)
MYRTLE BEACH, SOUTH CAROLINA

AL-280 (FAA)



AIRPORT DIAGRAM
09351

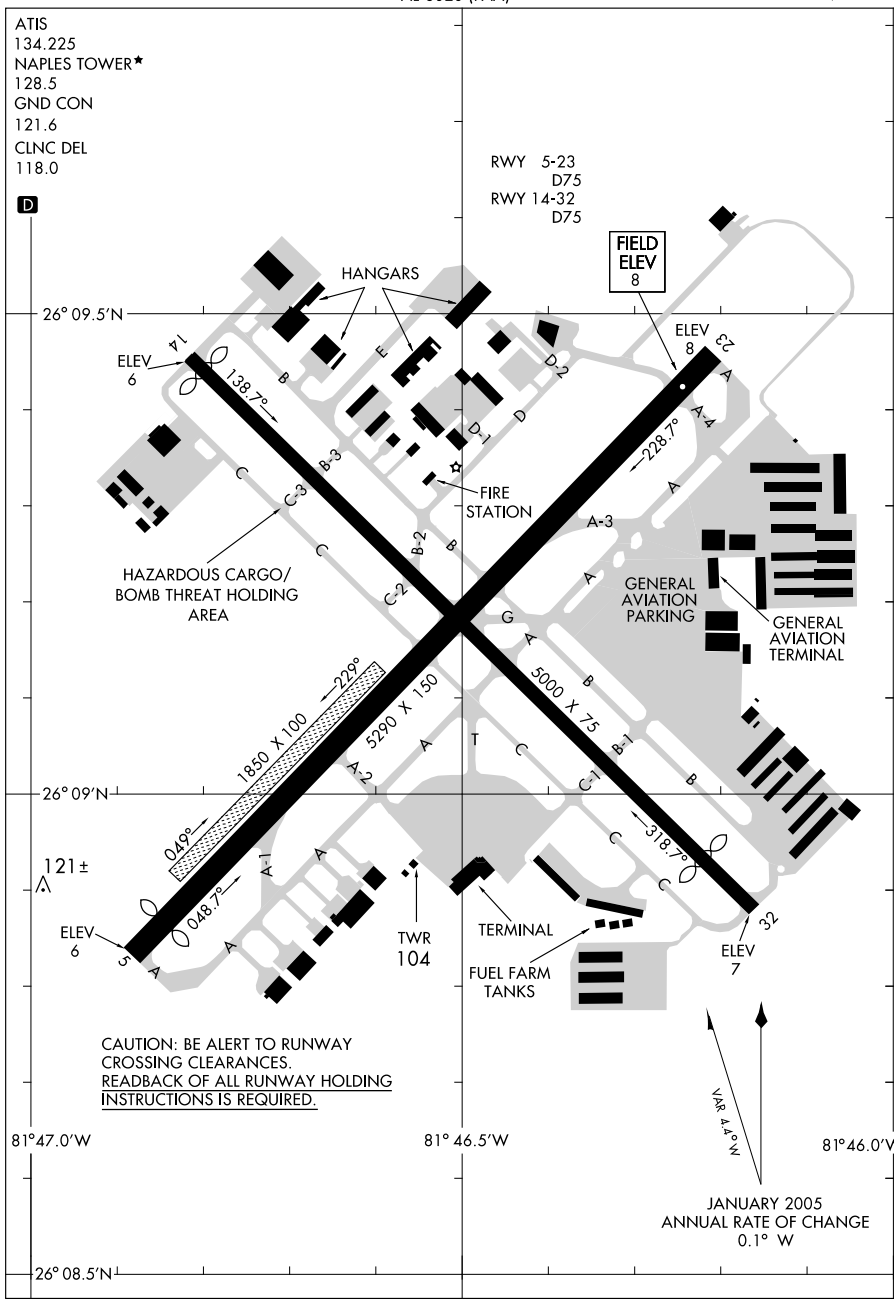
MYRTLE BEACH, SOUTH CAROLINA
MYRTLE BEACH INTL (MYR)

10154

AIRPORT DIAGRAM

AL-6020 (FAA)

NAPLES MUNI (APF)
NAPLES, FLORIDA



AIRPORT DIAGRAM
10154

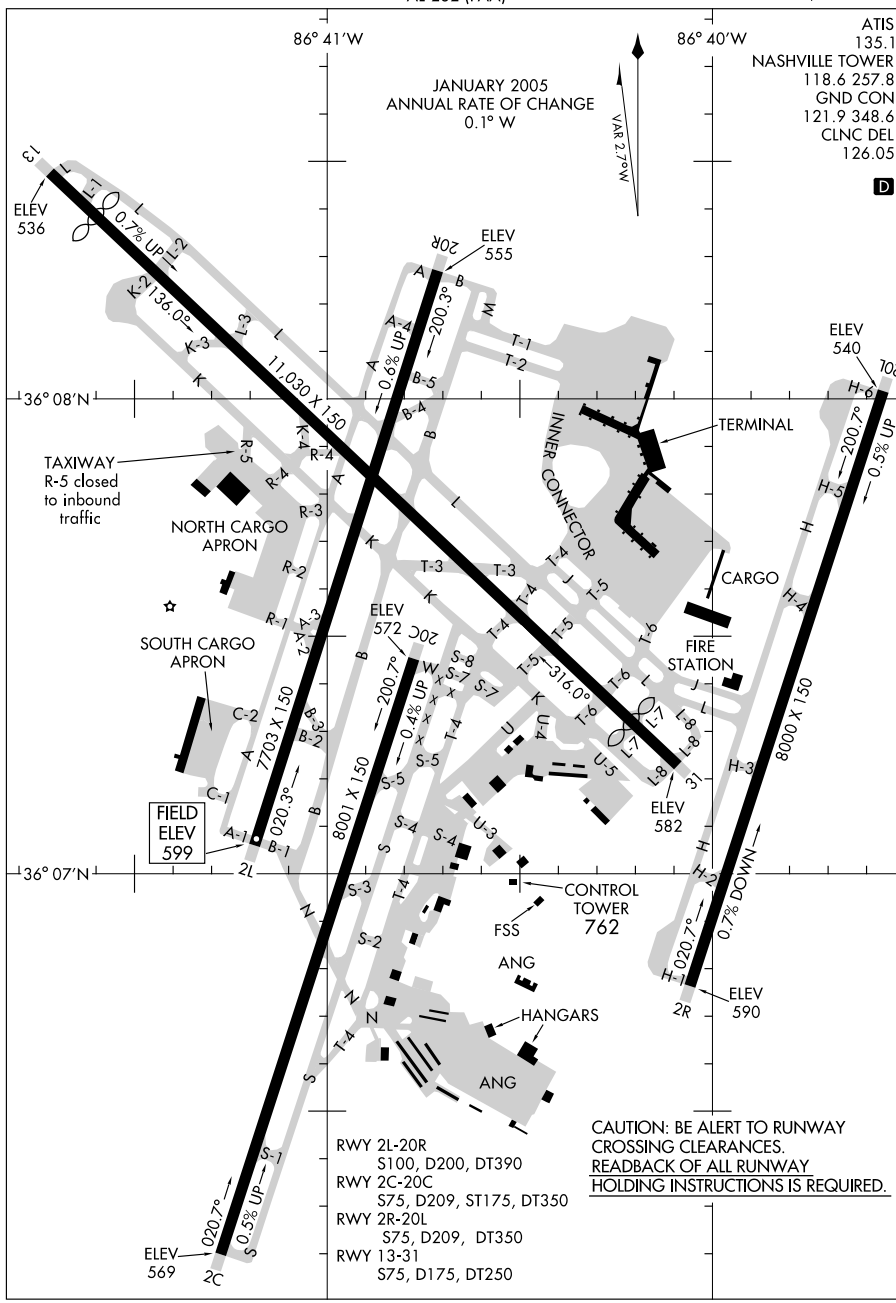
NAPLES, FLORIDA
NAPLES MUNI (APF)

09183

AIRPORT DIAGRAM

AL-282 (FAA)

NASHVILLE INTL (BNA)
NASHVILLE, TENNESSEE



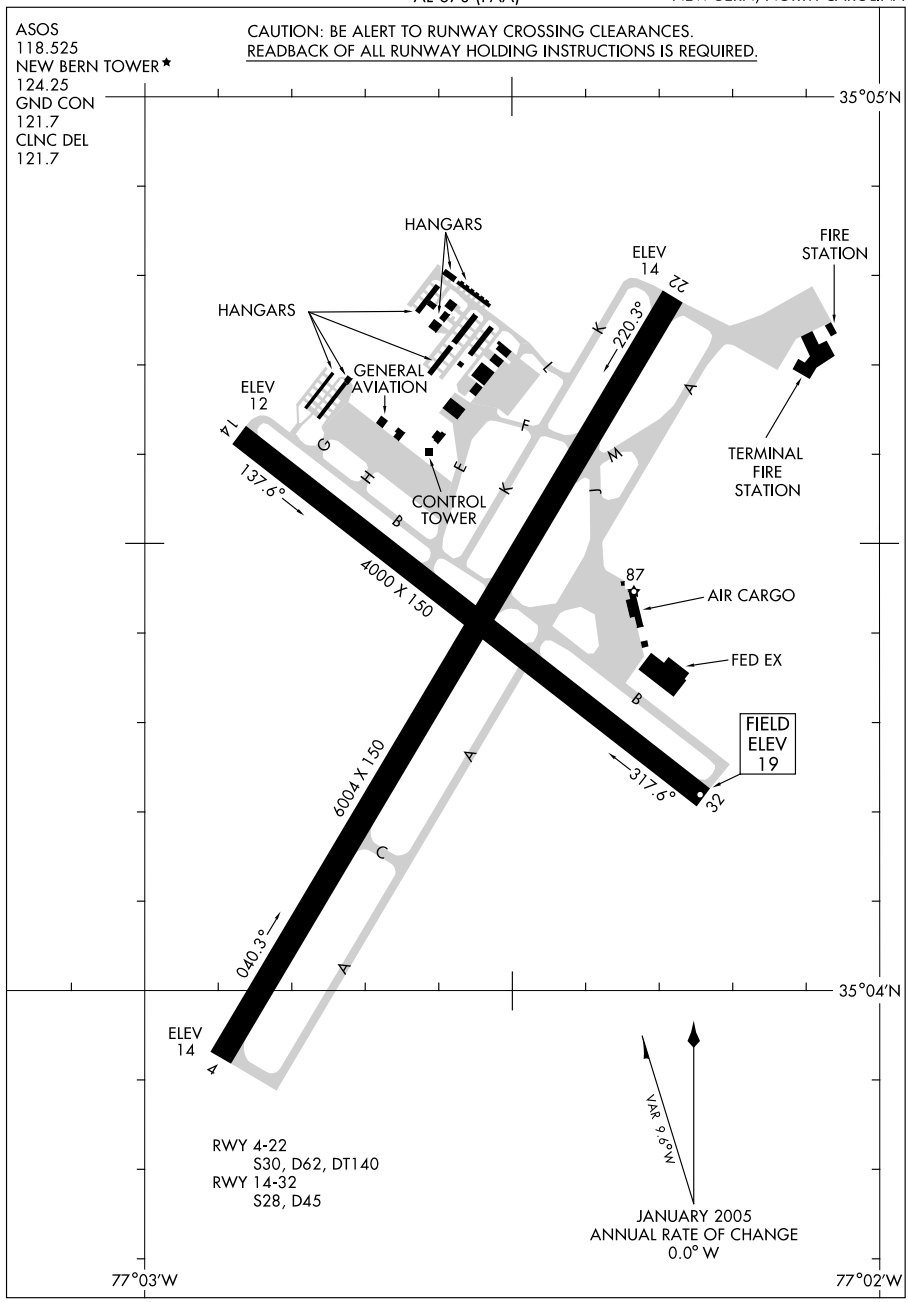
AIRPORT DIAGRAM
09183

NASHVILLE, TENNESSEE
NASHVILLE INTL (BNA)

09183

AIRPORT DIAGRAM

NEW BERN/COASTAL CAROLINA RGNL (EWN)
AL-670 (FAA)
NEW BERN, NORTH CAROLINA



AIRPORT DIAGRAM

09183

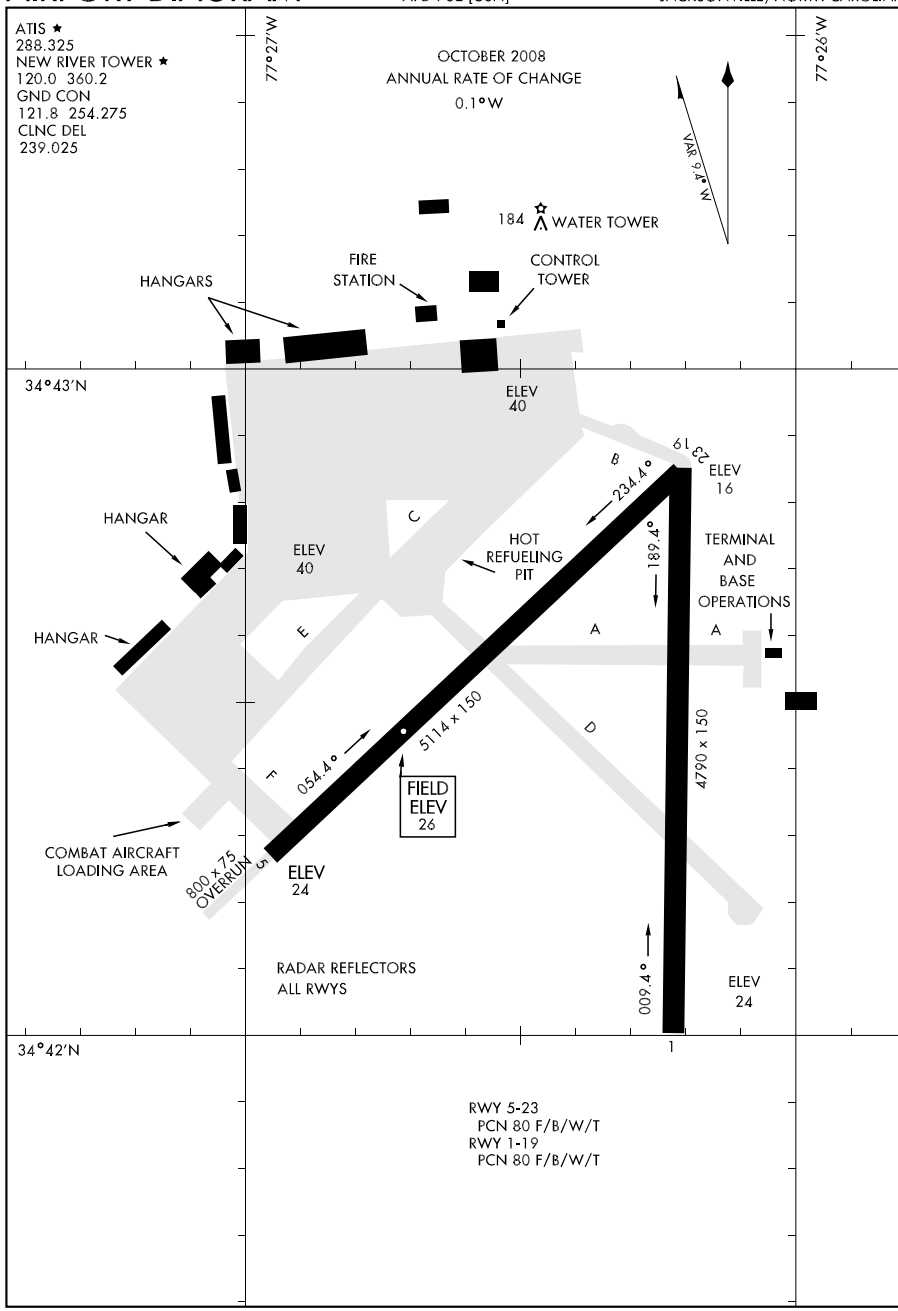
NEW BERN, NORTH CAROLINA
NEW BERN/COASTAL CAROLINA RGNL (EWN)

08325

AIRPORT DIAGRAM

AFD-732 [USN]

NEW RIVER MCAS (KNCA)
JACKSONVILLE, NORTH CAROLINA



AIRPORT DIAGRAM

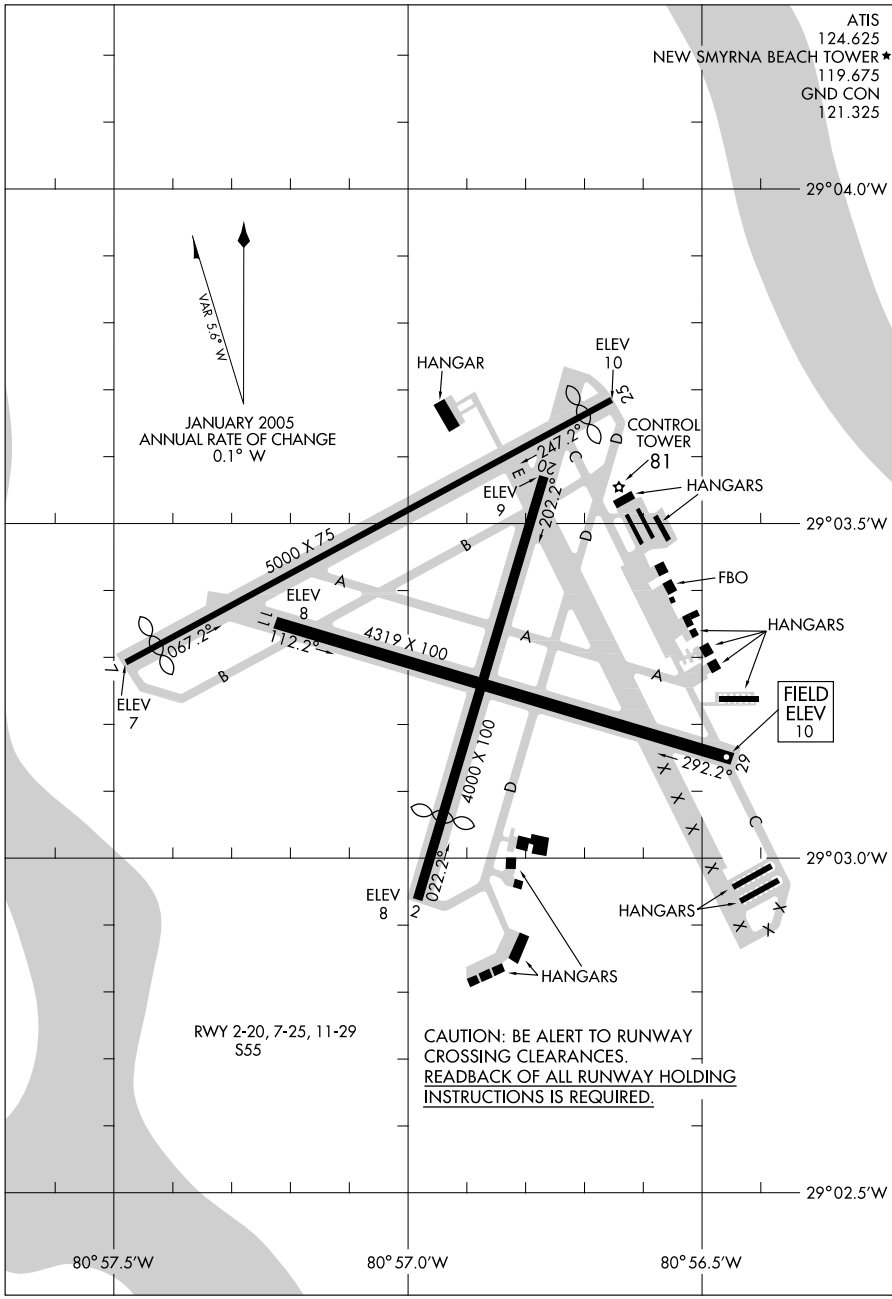
JACKSONVILLE, NORTH CAROLINA
NEW RIVER MCAS (KNCA)

09295

AIRPORT DIAGRAM

AL-6459 (FAA)

NEW SMYRNA BEACH MUNI (EVB)
NEW SMYRNA BEACH, FLORIDA



AIRPORT DIAGRAM

09295

NEW SMYRNA BEACH, FLORIDA
NEW SMYRNA BEACH MUNI (EVB)

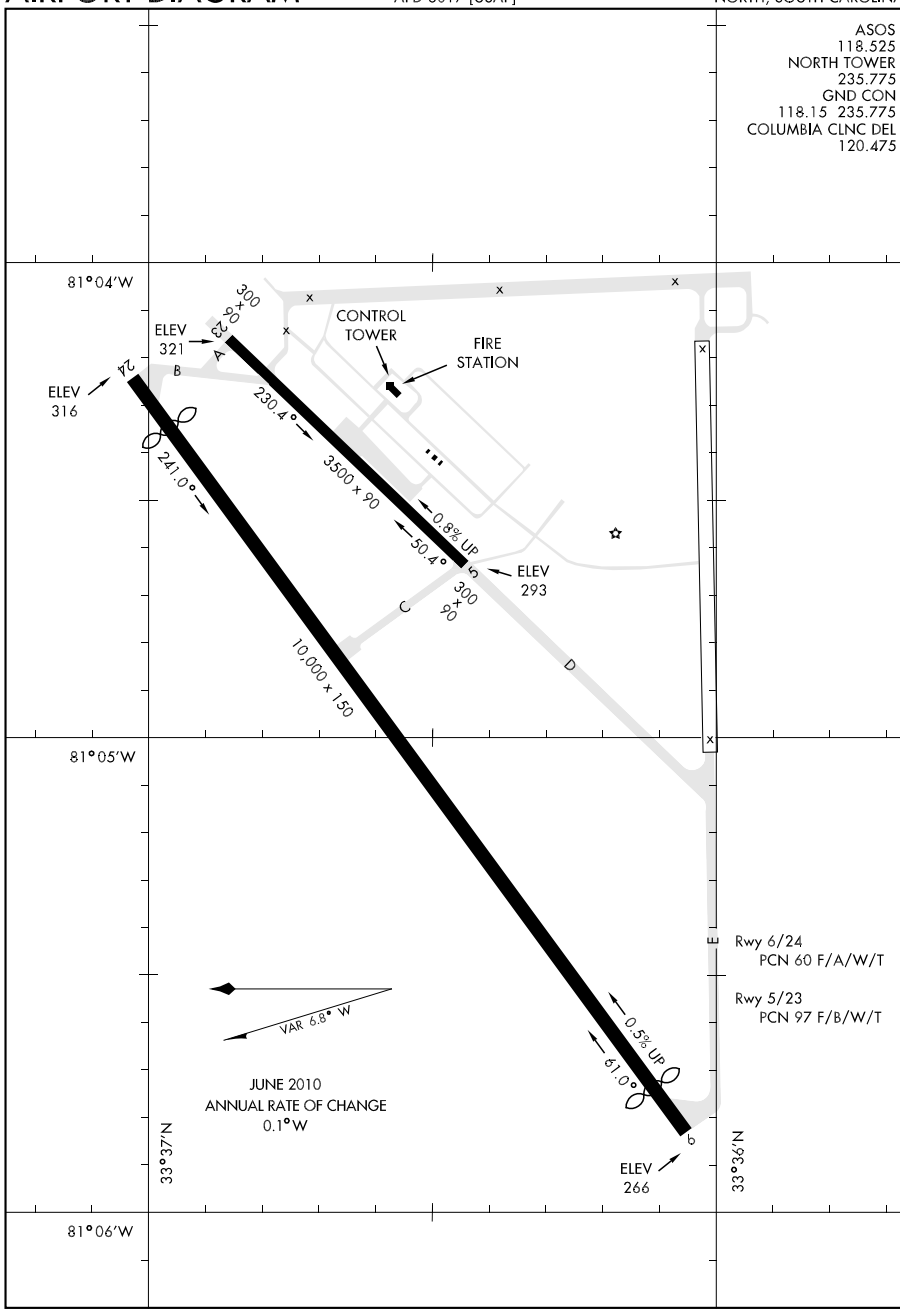
Orig 10154

AIRPORT DIAGRAM

AFD-3017 [USAF]

NORTH AF AUX (KXNO)

NORTH, SOUTH CAROLINA



AIRPORT DIAGRAM

NORTH, SOUTH CAROLINA

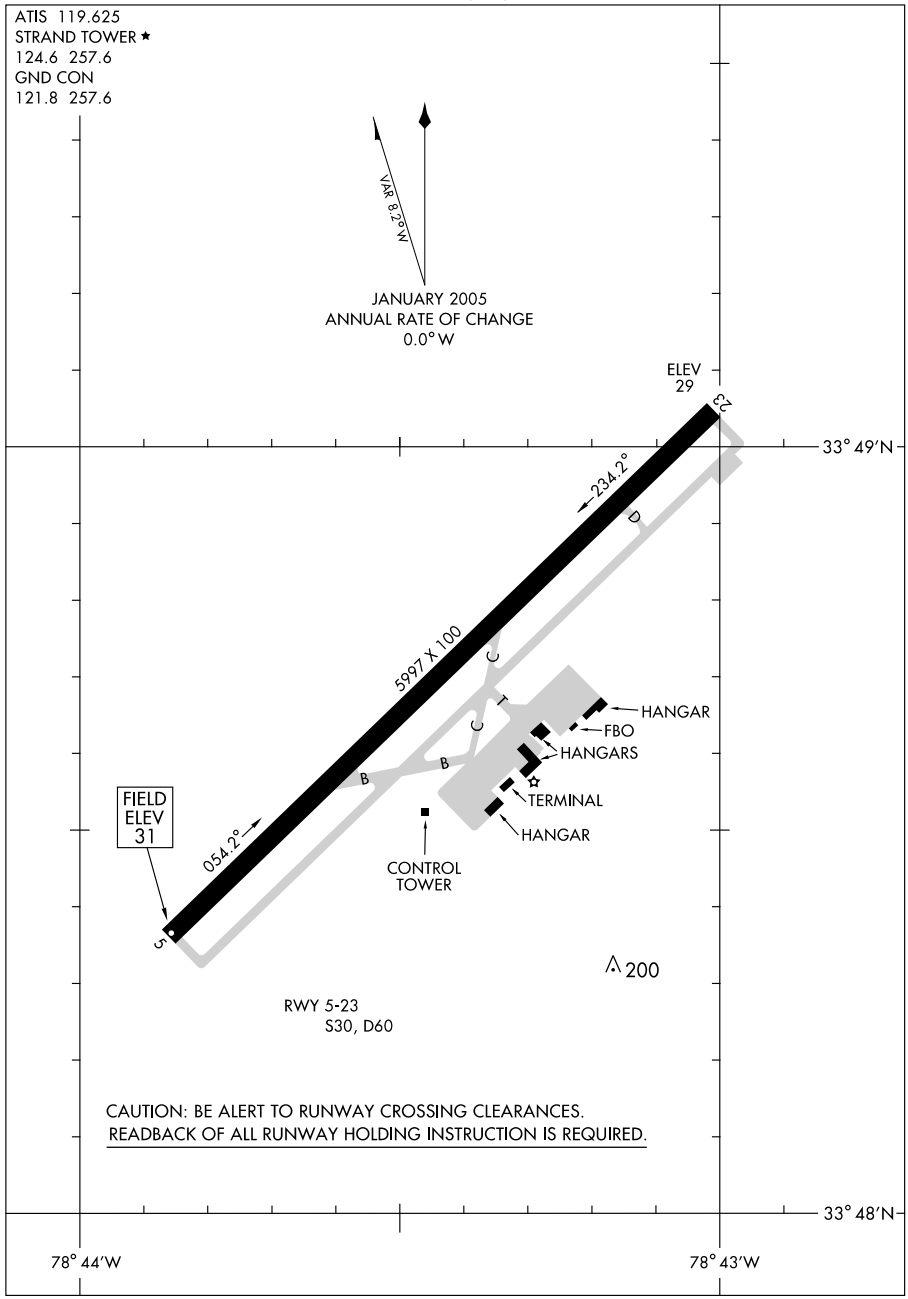
NORTH AF AUX (KXNO)

08213

AIRPORT DIAGRAM

NORTH MYRTLE BEACH/GRAND STRAND (CRE)
NORTH MYRTLE BEACH, SOUTH CAROLINA

AL-5097 (FAA)



33° 49′N - 78° 44′W

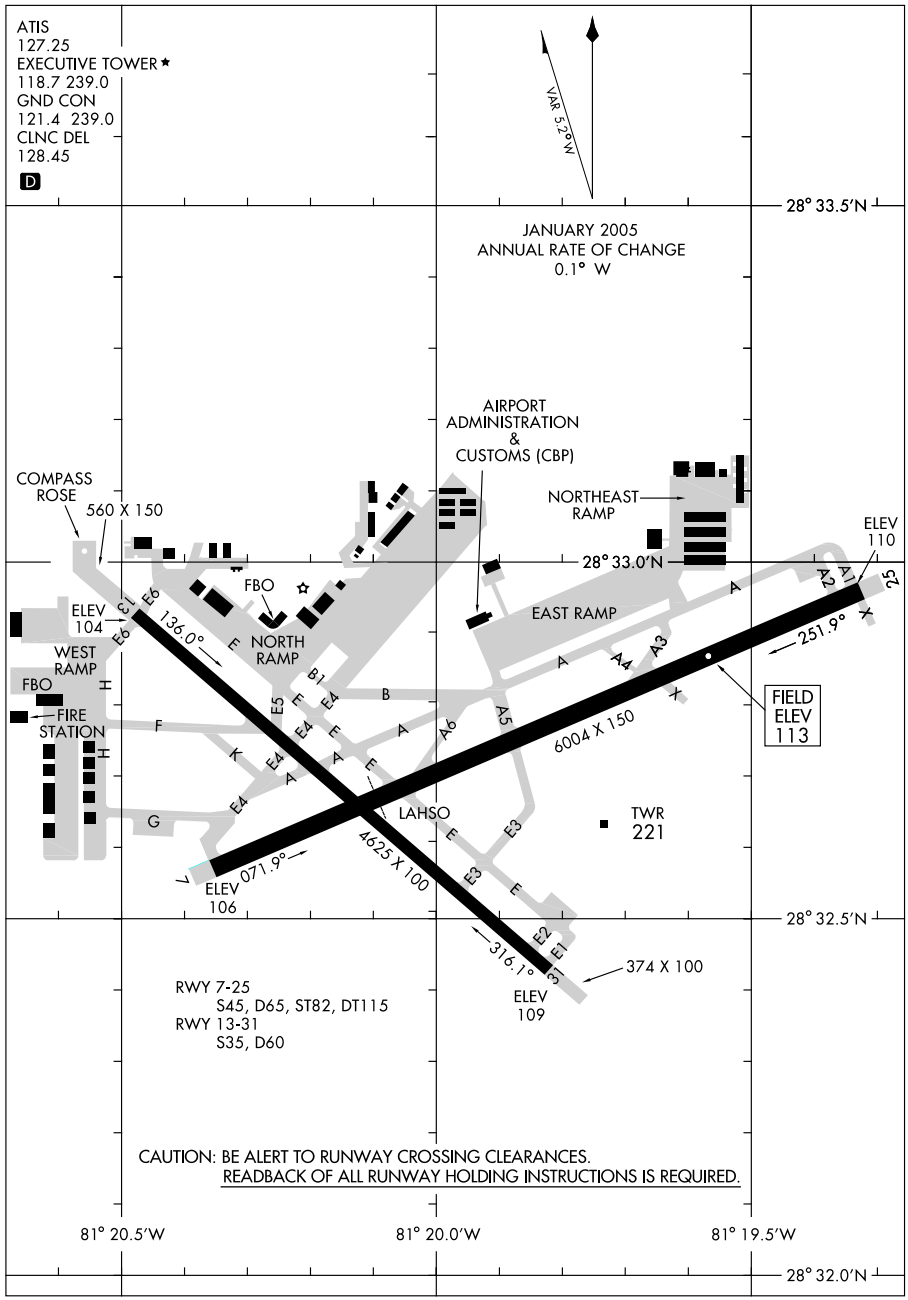
AIRPORT DIAGRAM
NORTH MYRTLE BEACH, SOUTH CAROLINA
NORTH MYRTLE BEACH/GRAND STRAND (CRE)
08213

10042

AIRPORT DIAGRAM

AL-305 (FAA)

ORLANDO/ EXECUTIVE (ORL)
ORLANDO, FLORIDA



AIRPORT DIAGRAM

10042

ORLANDO, FLORIDA
ORLANDO/EXECUTIVE (ORL)

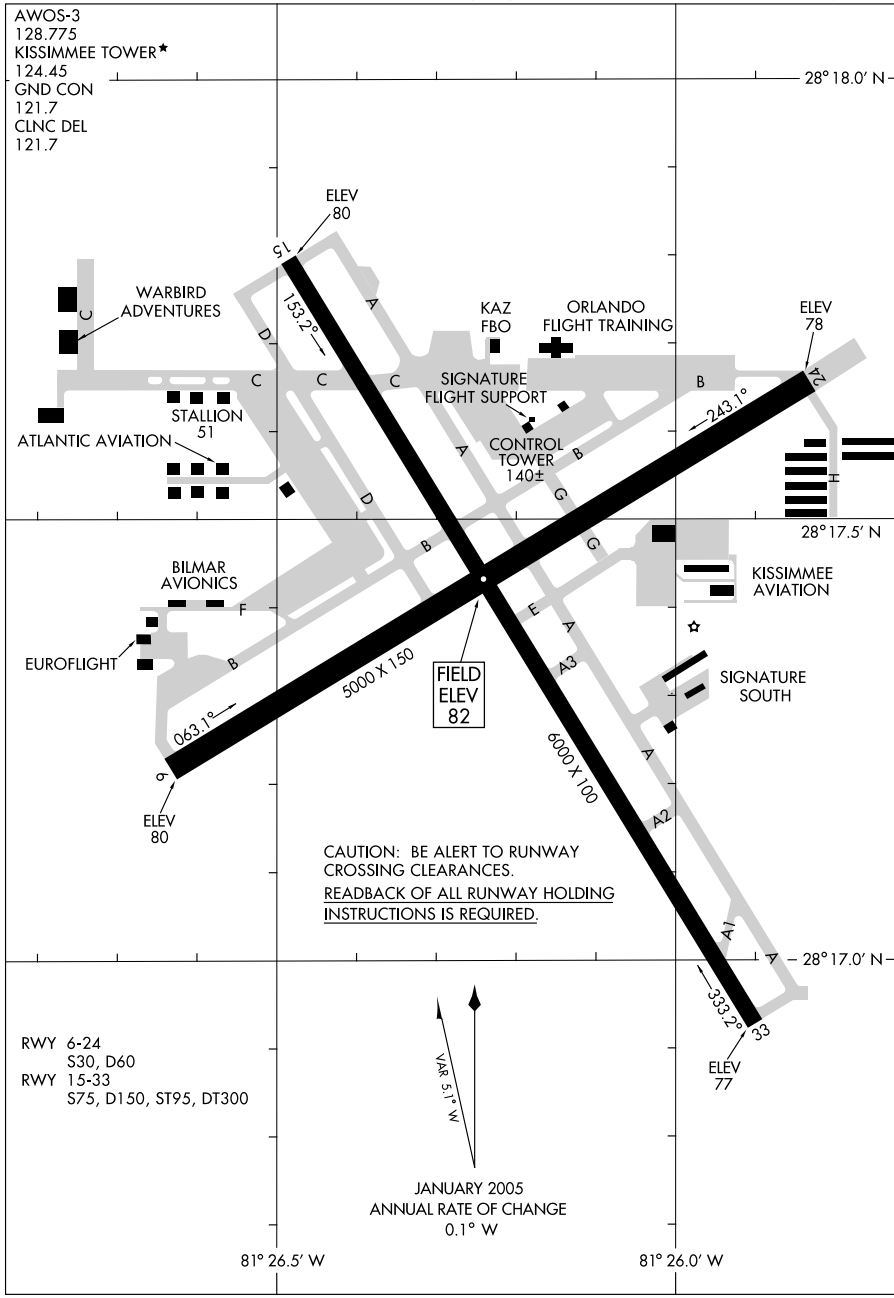
10042

AIRPORT DIAGRAM

ORLANDO/KISSIMMEE GATEWAY (ISM)

AL-5793 (FAA)

ORLANDO, FLORIDA



AIRPORT DIAGRAM

10042

ORLANDO, FLORIDA

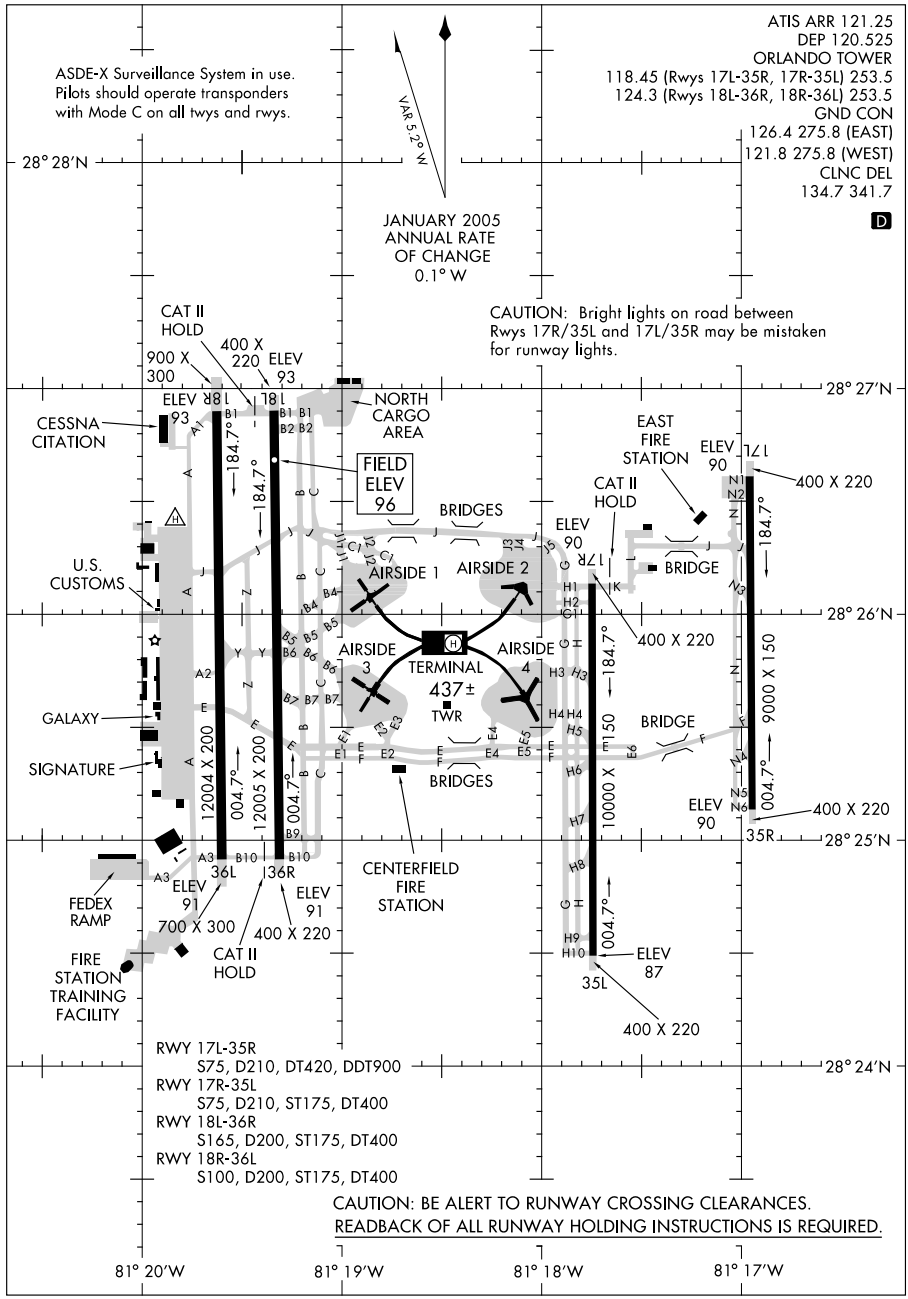
ORLANDO/KISSIMMEE GATEWAY (ISM)

10154

AIRPORT DIAGRAM

AL-571 (FAA)

ORLANDO INTL (MCO)
ORLANDO, FLORIDA



AIRPORT DIAGRAM

10154

ORLANDO, FLORIDA
ORLANDO INTL (MCO)

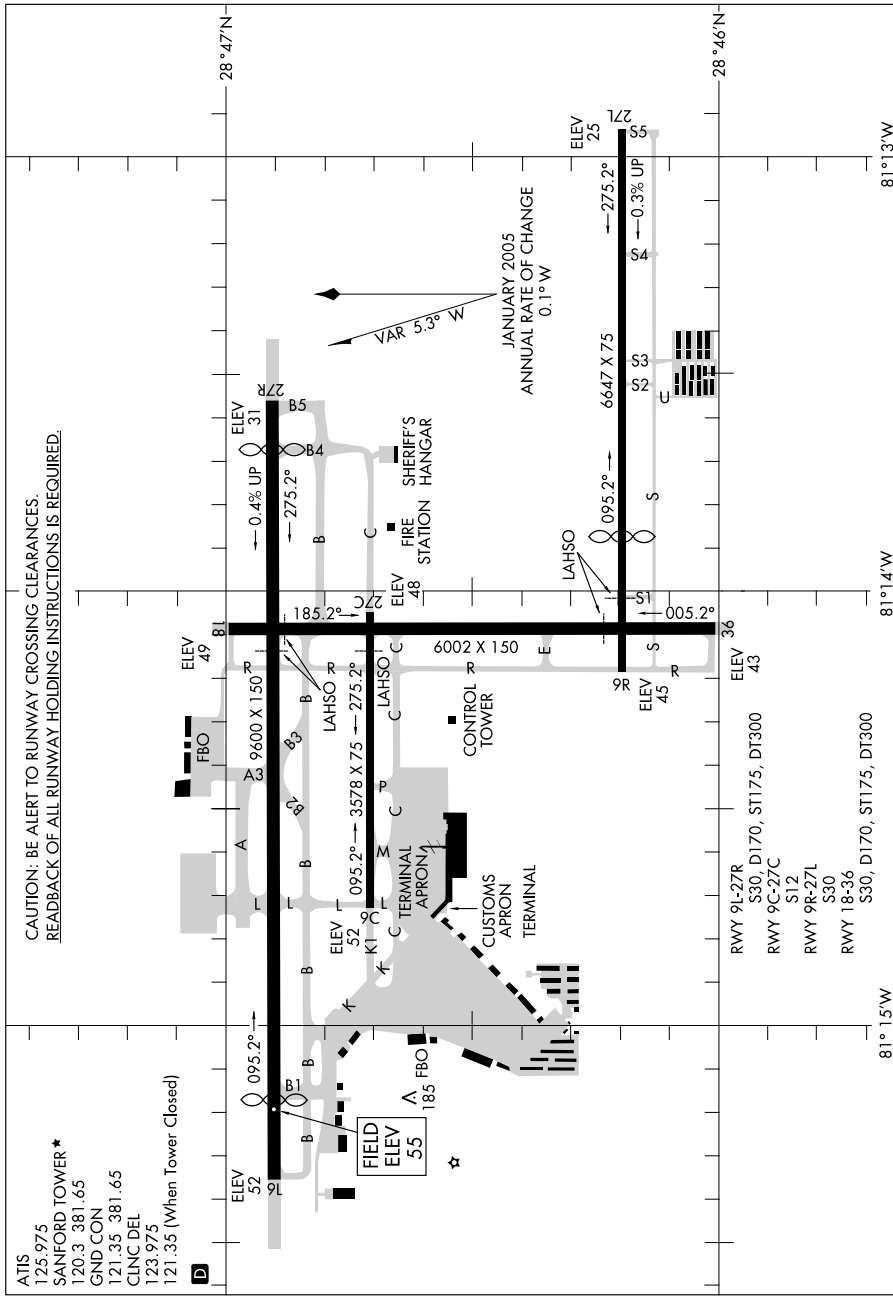
10042

AIRPORT DIAGRAM

AL-917 (FAA)

ORLANDO SANFORD INTL (SFB)

ORLANDO, FLORIDA



AIRPORT DIAGRAM

10042

ORLANDO, FLORIDA

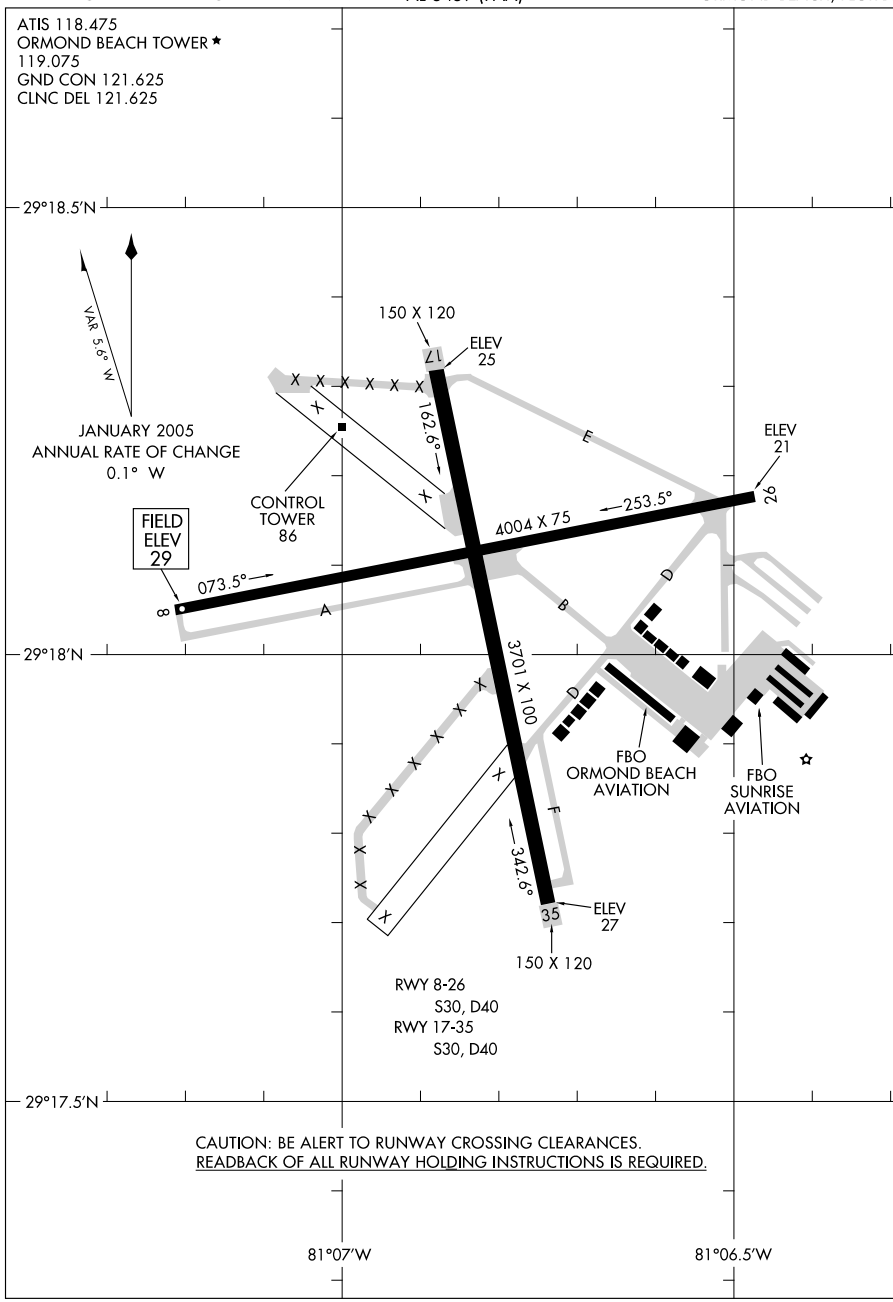
ORLANDO SANFORD INTL (SFB)

08157

AIRPORT DIAGRAM

AL-5459 (FAA)

ORMOND BEACH MUNI (OMN)
ORMOND BEACH, FLORIDA



AIRPORT DIAGRAM
08157

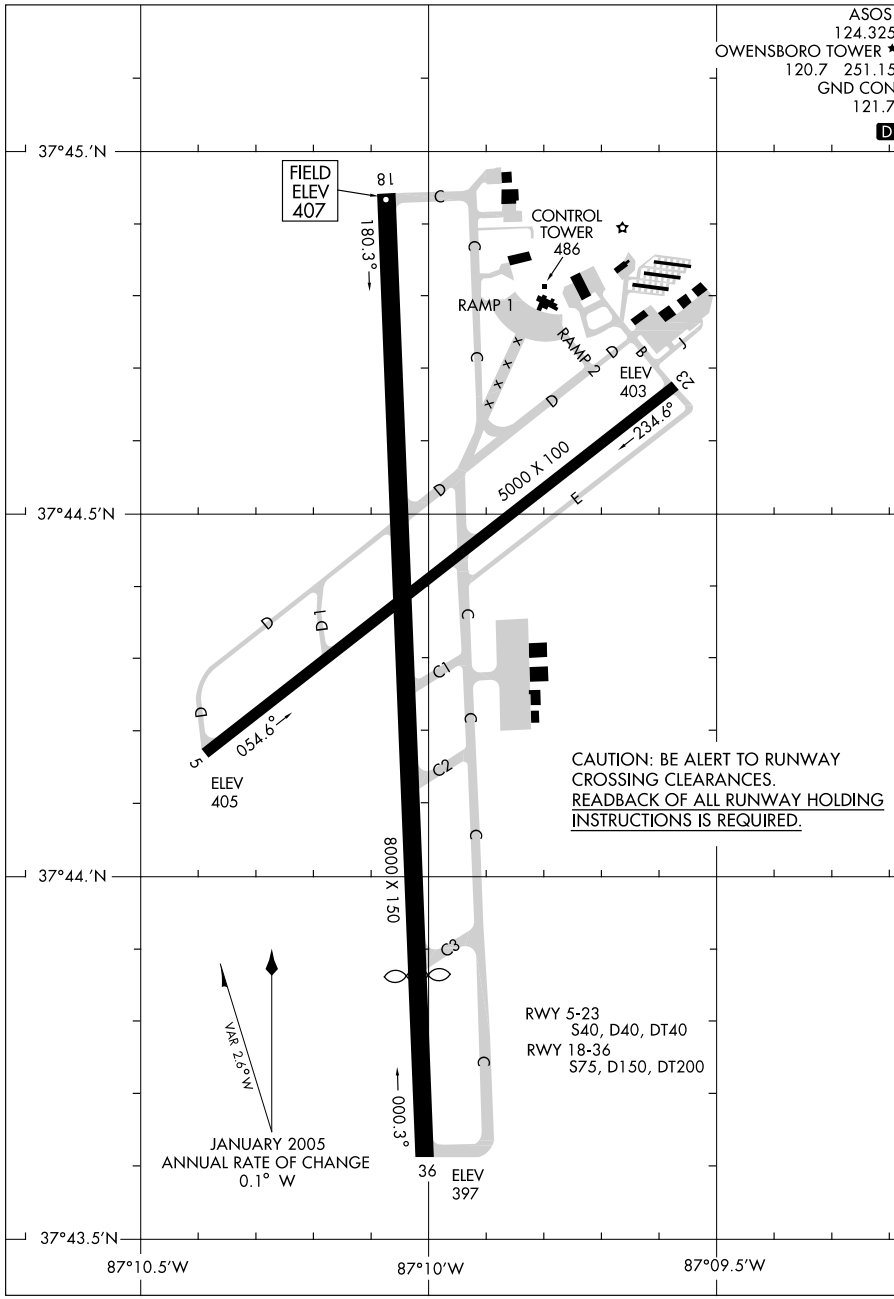
ORMOND BEACH, FLORIDA
ORMOND BEACH MUNI (OMN)

09071

AIRPORT DIAGRAM

AL-707 (FAA)

OWENSBORO-DAVIESS COUNTY (OWB)
OWENSBORO, KENTUCKY



AIRPORT DIAGRAM

09071

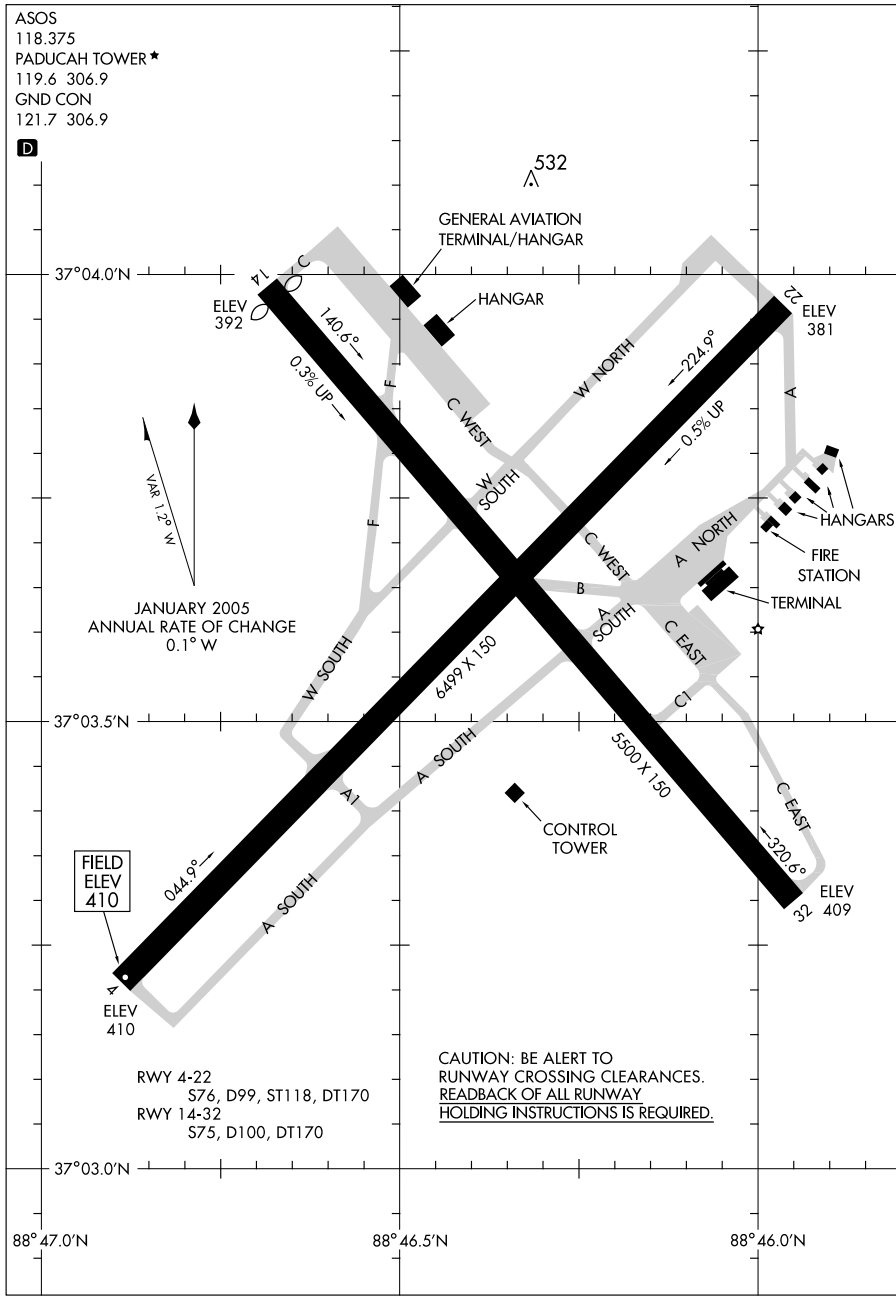
OWENSBORO, KENTUCKY
OWENSBORO-DAVIESS COUNTY (OWB)

09071

AIRPORT DIAGRAM

PADUCAH/BARKLEY RGNL (PAH)
PADUCAH, KENTUCKY

AL-628 (FAA)



AIRPORT DIAGRAM
09071

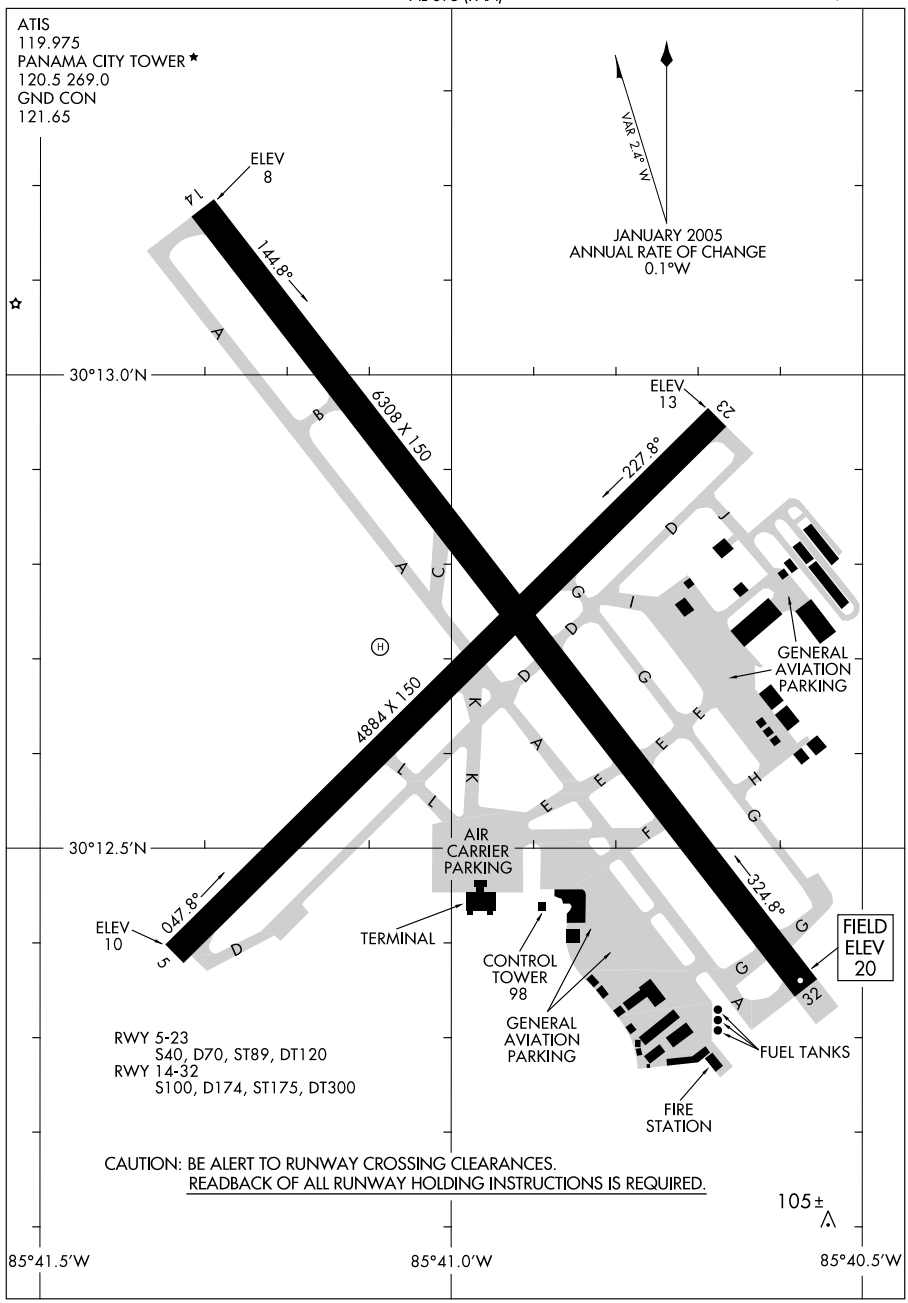
PADUCAH, KENTUCKY
PADUCAH/BARKLEY RGNL (PAH)

09183

AIRPORT DIAGRAM

PANAMA CITY-BAY COUNTY INTL (PFN)
PANAMA CITY, FLORIDA

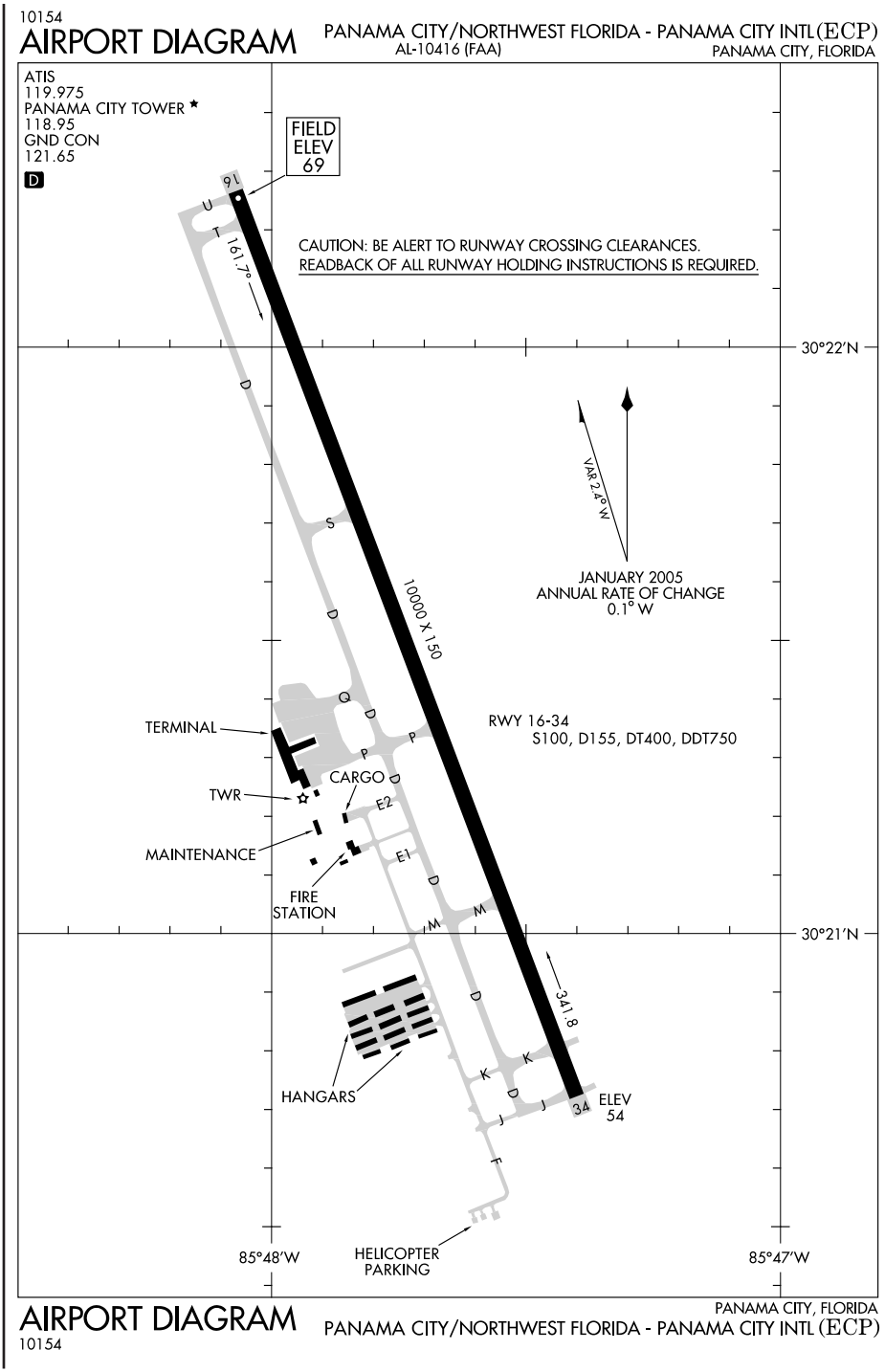
AL-695 (FAA)



AIRPORT DIAGRAM

09183

PANAMA CITY, FLORIDA
PANAMA CITY-BAY COUNTY INTL (PFN)

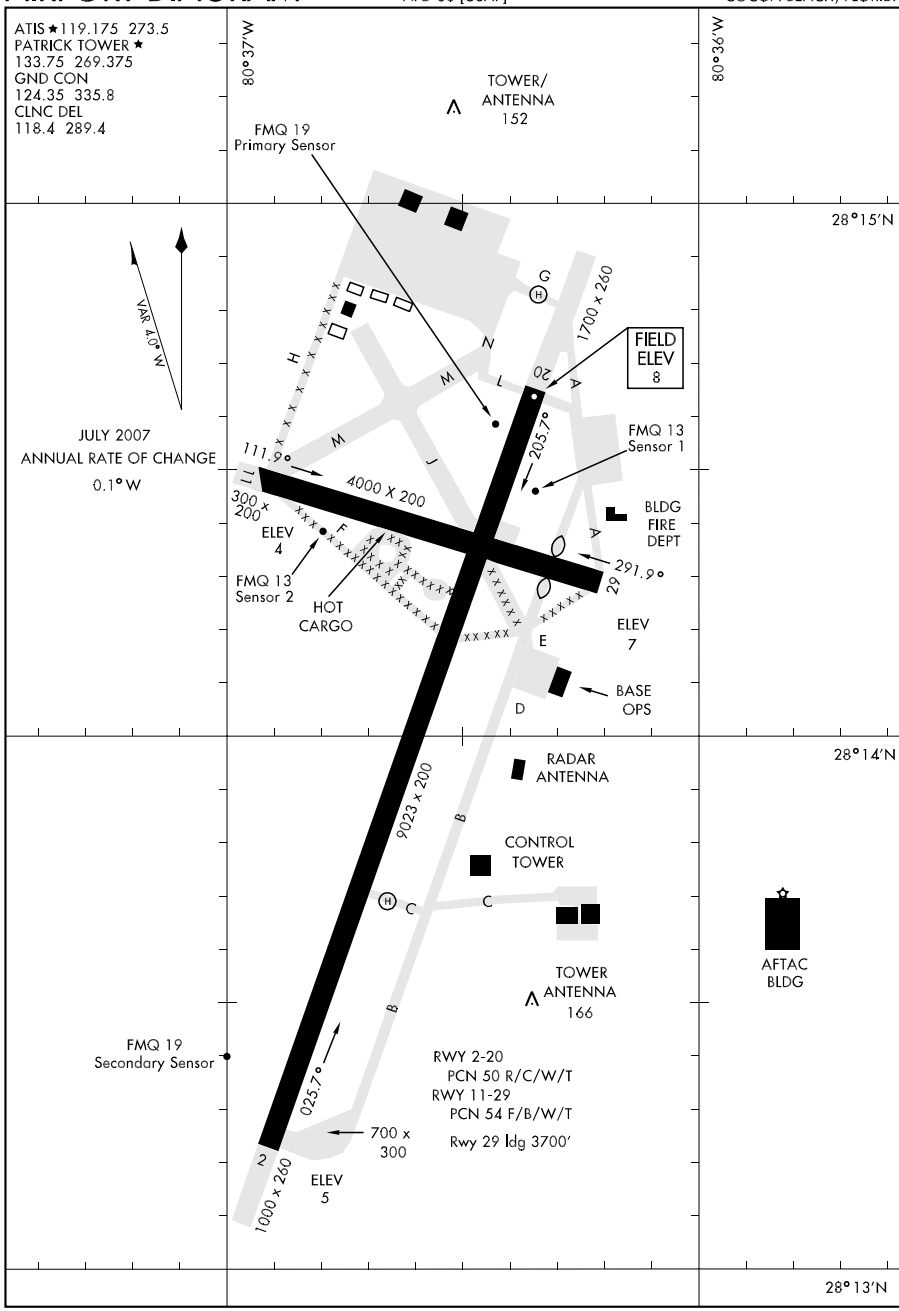

10154
AIRPORT DIAGRAM
PANAMA CITY/NORTHWEST FLORIDA - PANAMA CITY INTL (ECP)
AL-10416 (FAA)
PANAMA CITY, FLORIDA
ATIS
119.975
PANAMA CITY TOWER ★
118.95
GND CON
121.65
D
FIELD ELEV 69
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
161.7°
30°22'N
VAR 2.4°W
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1° W
10000 X 150
RWY 16-34
S100, D155, DT400, DDT750
TERMINAL
TWR
CARGO
MAINTENANCE
FIRE STATION
30°21'N
341.8
HANGARS
ELEV 54
34
HELICOPTER PARKING
85°48'W
85°47'W
AIRPORT DIAGRAM
10154
PANAMA CITY/NORTHWEST FLORIDA - PANAMA CITY INTL (ECP)
PANAMA CITY, FLORIDA

07186

AIRPORT DIAGRAM

AFD-38 [USAF]

PATRICK AFB (KCOF)
COCOA BEACH, FLORIDA



AIRPORT DIAGRAM

COCOA BEACH, FLORIDA
PATRICK AFB (KCOF)

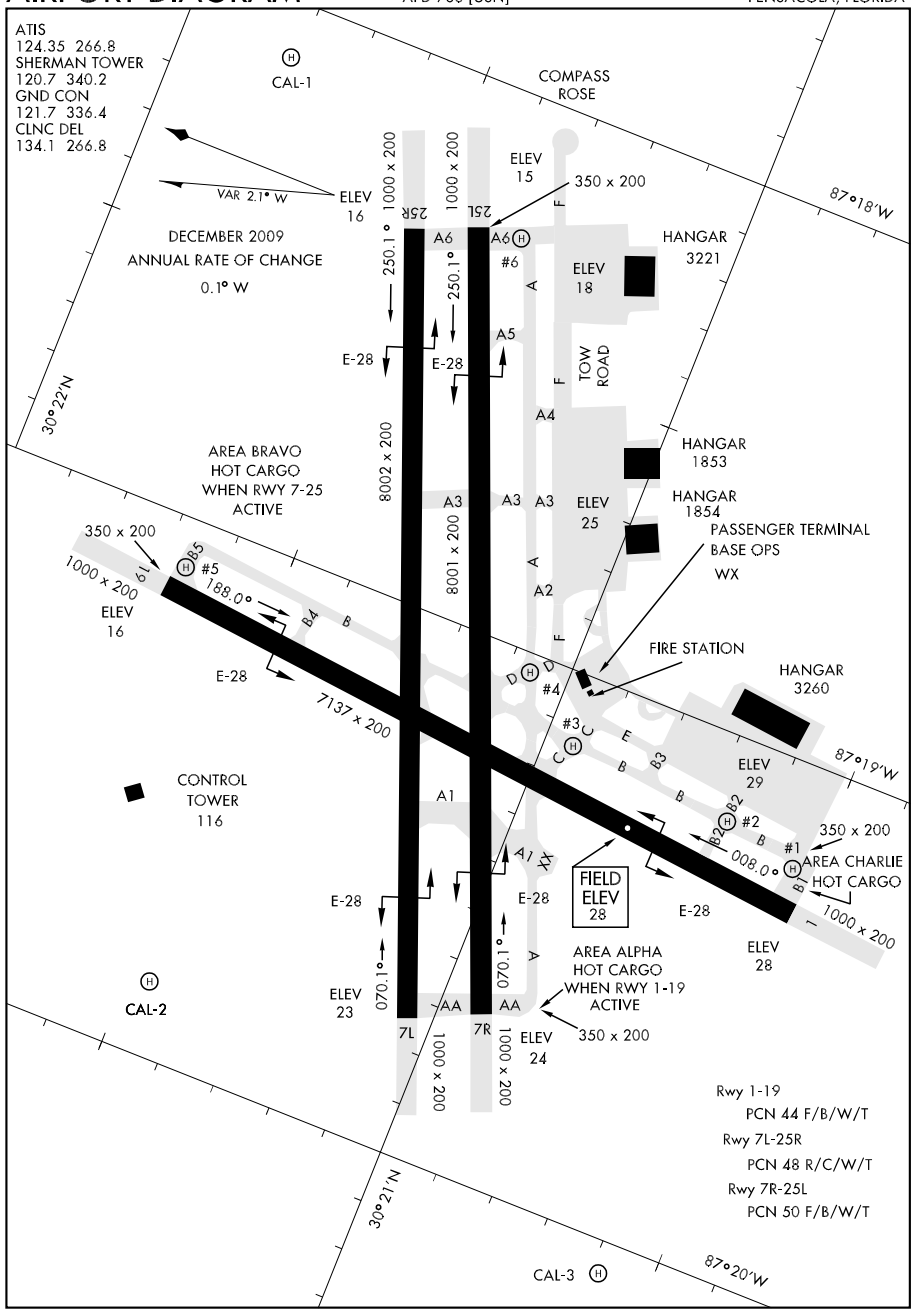
09351

AIRPORT DIAGRAM

PENSACOLA NAS (FORREST SHERMAN FLD) (KNPA)

AFD-736 [USN]

PENSACOLA, FLORIDA



AIRPORT DIAGRAM

PENSACOLA, FLORIDA

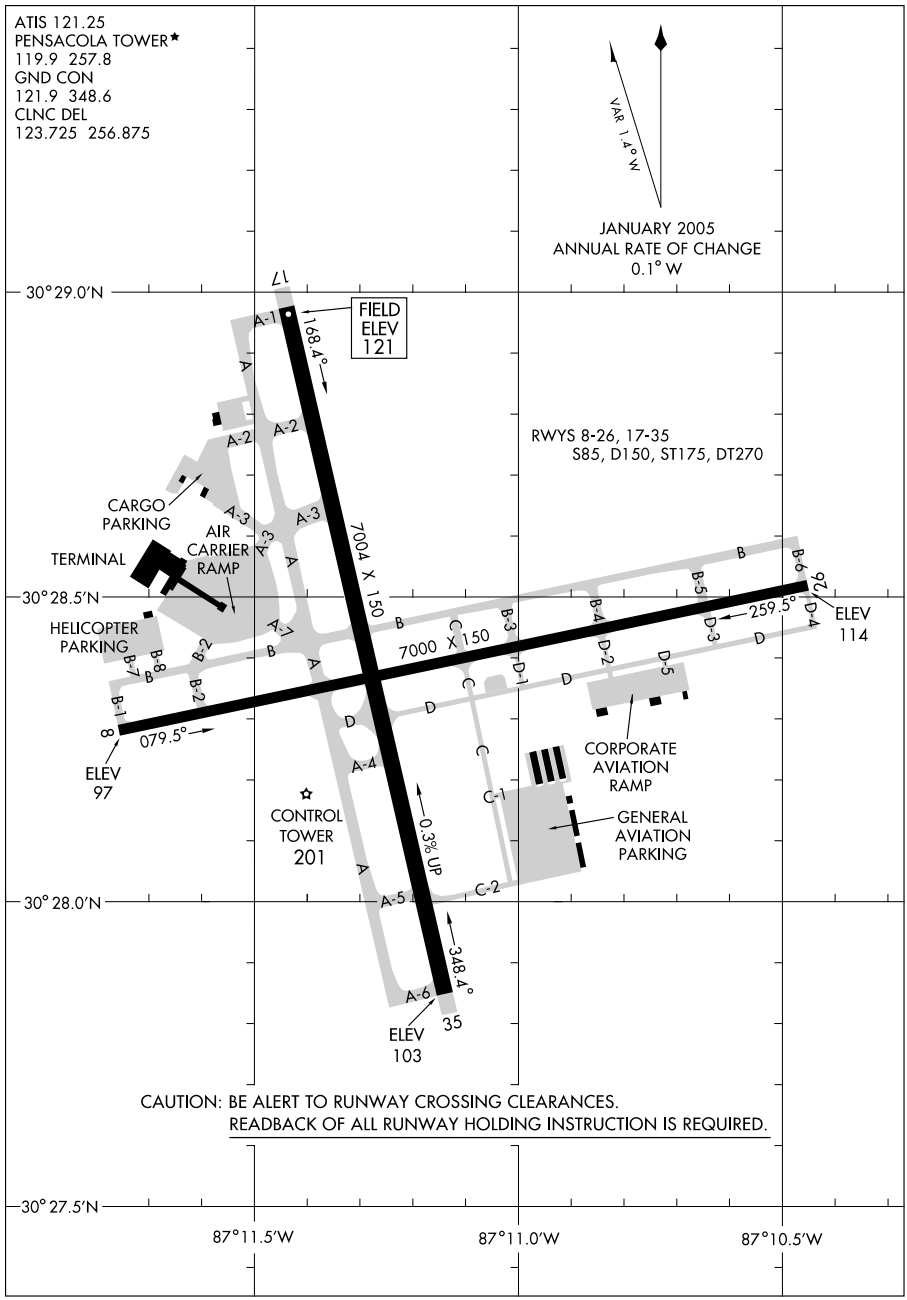
PENSACOLA NAS (FORREST SHERMAN FLD) (KNPA)

07354

AIRPORT DIAGRAM

AL-318 (FAA)

PENSACOLA RGNL (PNS)
PENSACOLA, FLORIDA



AIRPORT DIAGRAM
07354

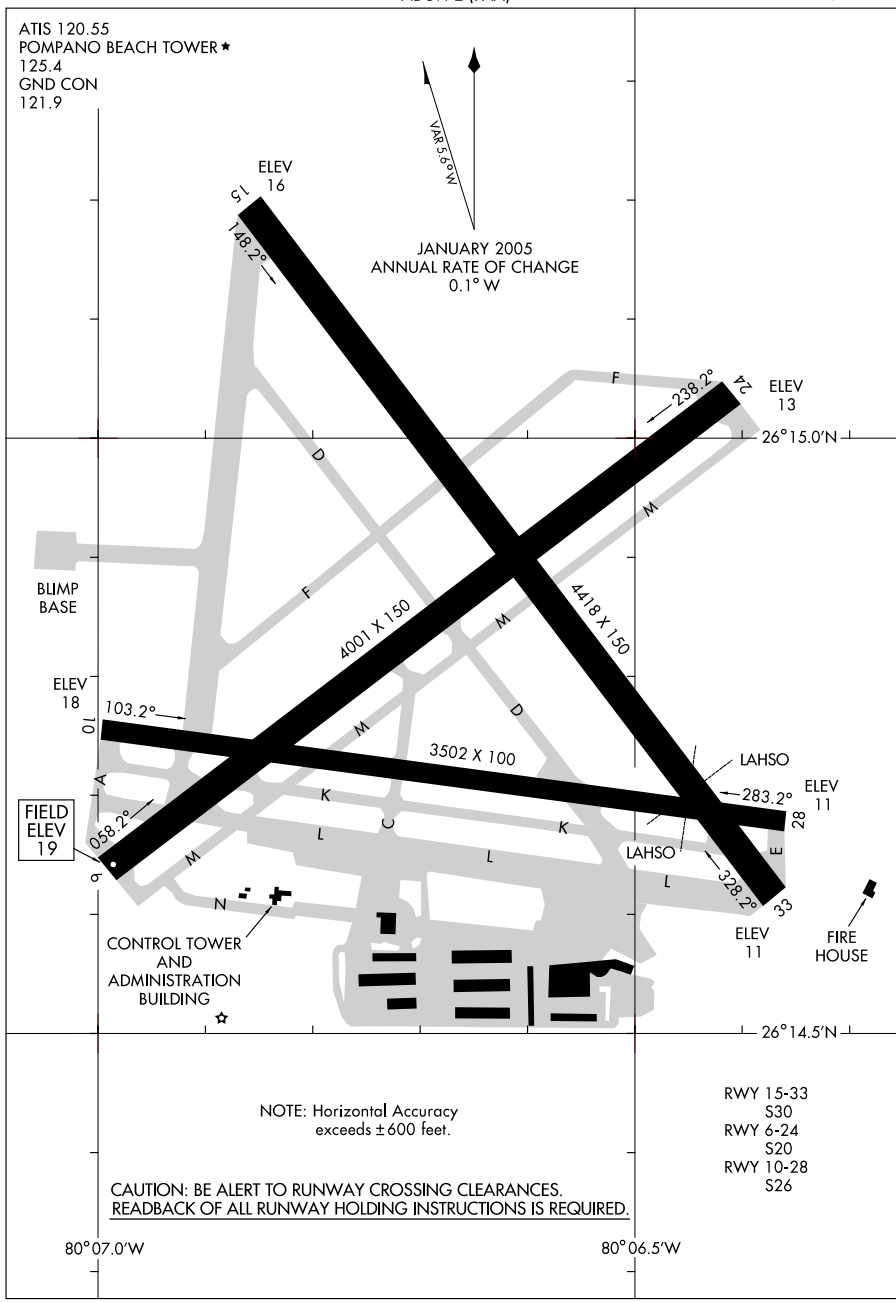
PENSACOLA, FLORIDA
PENSACOLA RGNL (PNS)

06215

AIRPORT DIAGRAM

AL-5972 (FAA)

POMPANO BEACH AIRPARK (PMP)
POMPANO BEACH, FLORIDA



AIRPORT DIAGRAM

06215

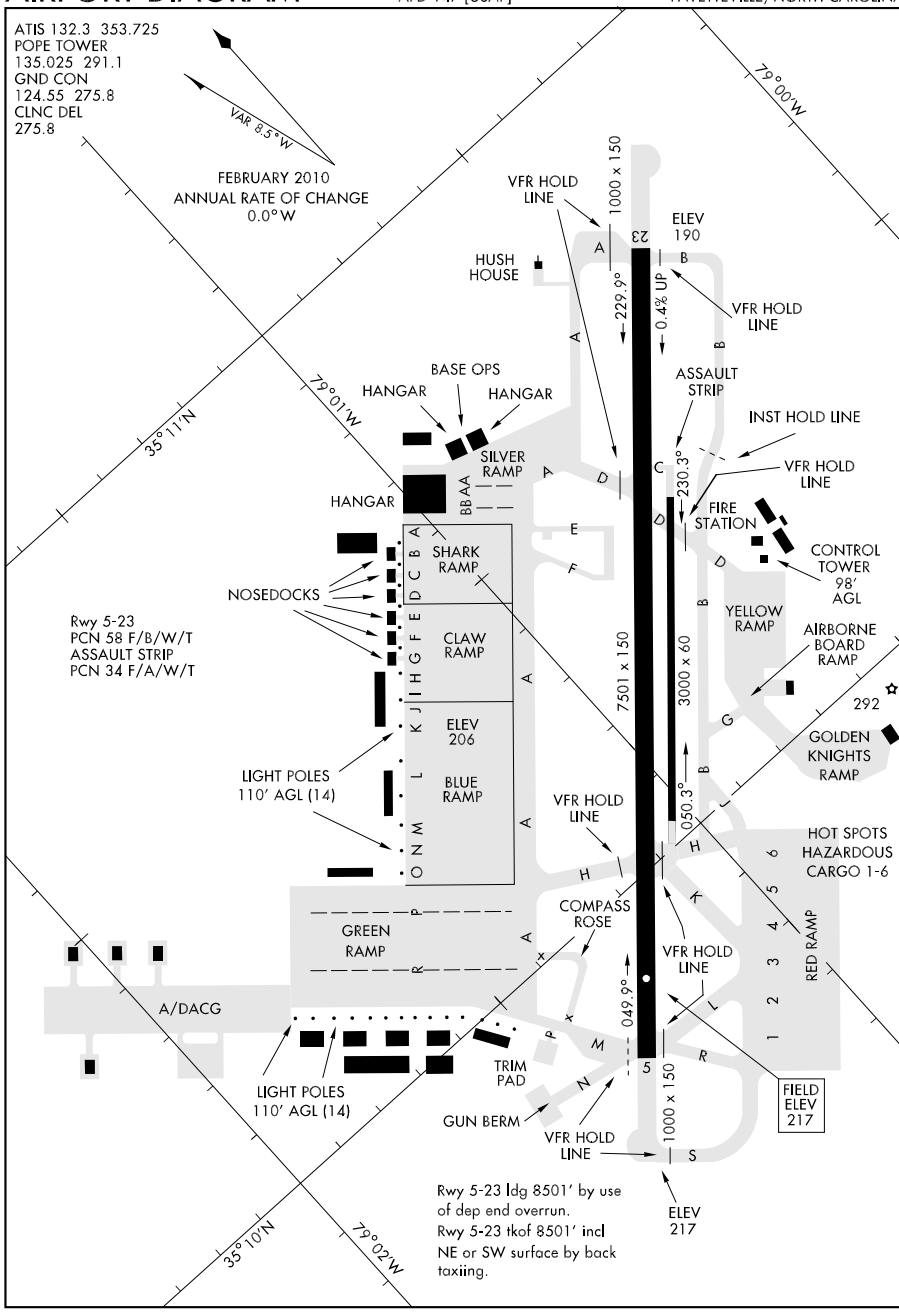
POMPANO BEACH, FLORIDA
POMPANO BEACH AIRPARK (PMP)

10042

AIRPORT DIAGRAM

AFD-147 [USAF]

POPE AFB (KPOB)
FAYETTEVILLE, NORTH CAROLINA



AIRPORT DIAGRAM

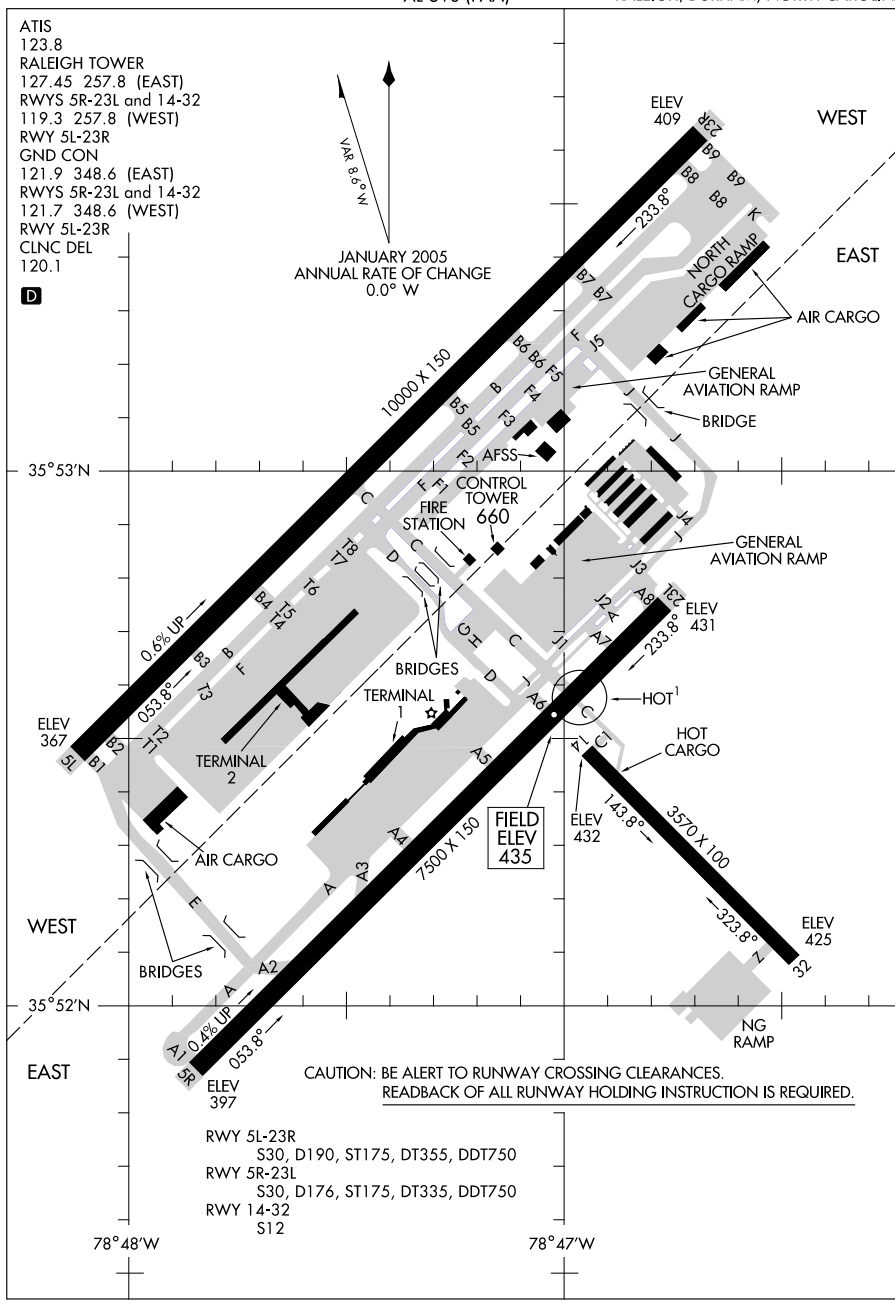
FAYETTEVILLE, NORTH CAROLINA
POPE AFB (KPOB)

09351

AIRPORT DIAGRAM

AL-516 (FAA)

RALEIGH-DURHAM INTL (RDU)
RALEIGH/DURHAM, NORTH CAROLINA



AIRPORT DIAGRAM

09351

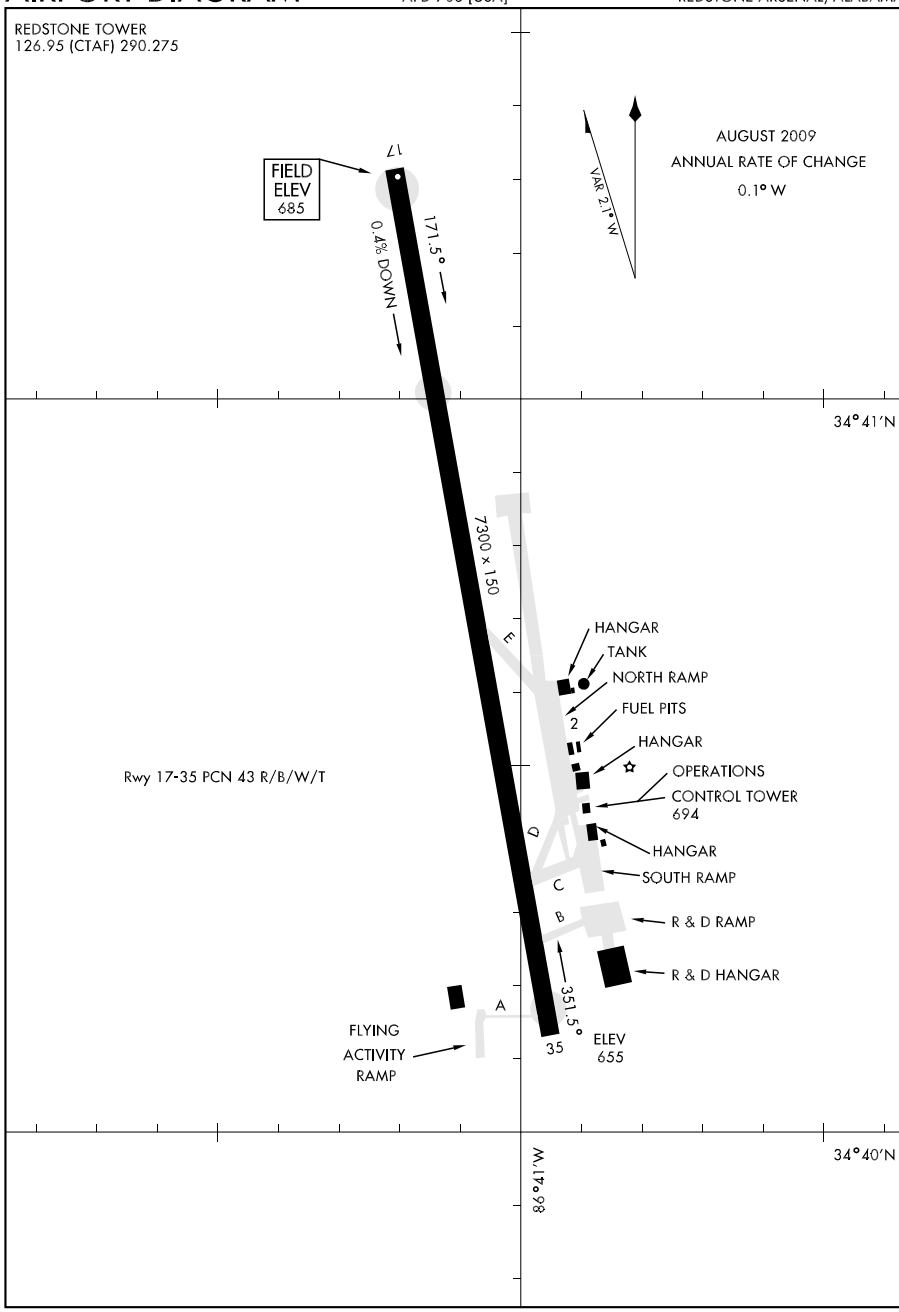
RALEIGH/DURHAM, NORTH CAROLINA
RALEIGH-DURHAM INTL (RDU)

09239

AIRPORT DIAGRAM

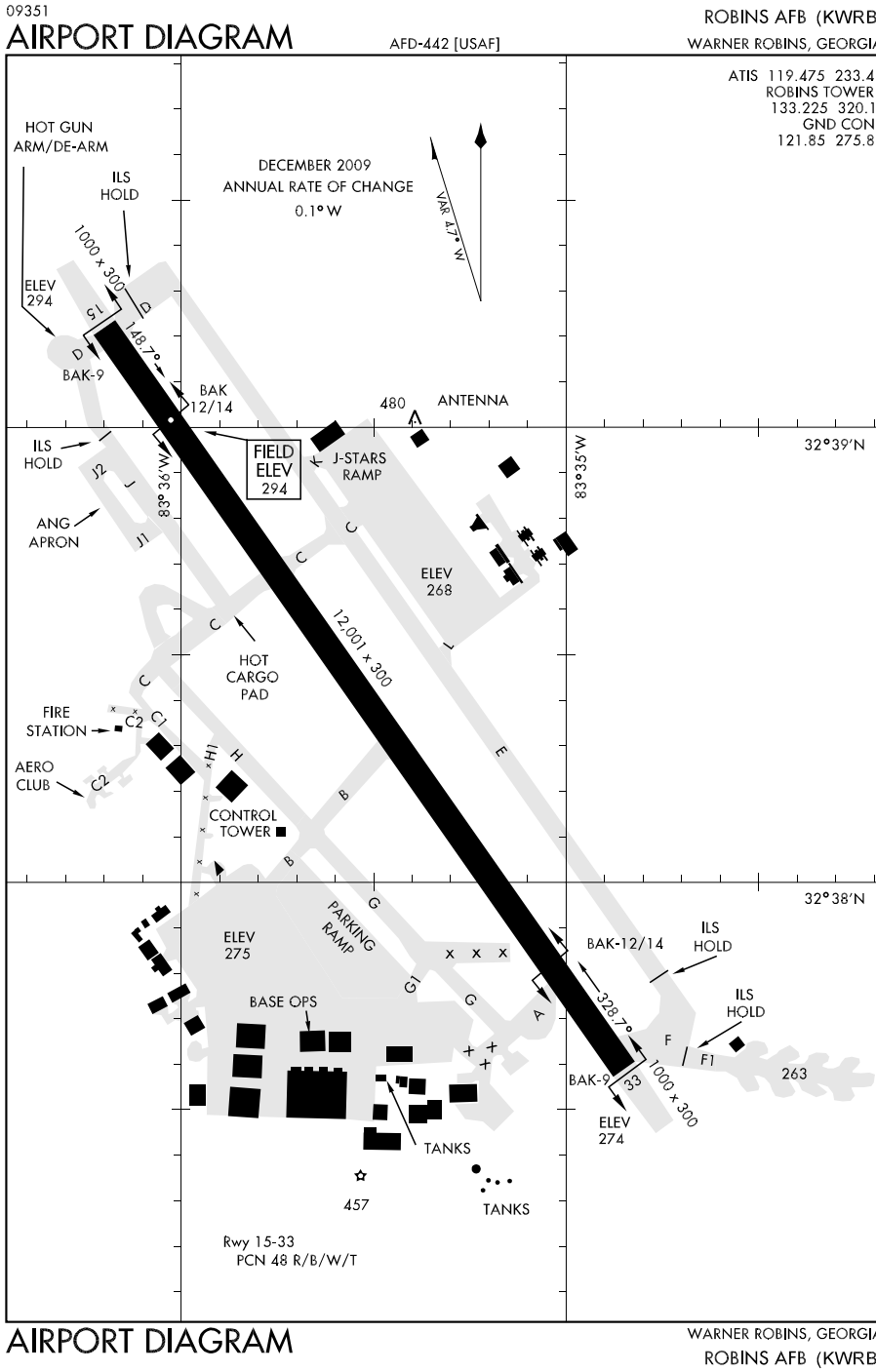
AFD-703 [USA]

REDSTONE AAF (KHUA)
REDSTONE ARSENAL, ALABAMA



AIRPORT DIAGRAM

REDSTONE ARSENAL, ALABAMA
REDSTONE AAF (KHUA)

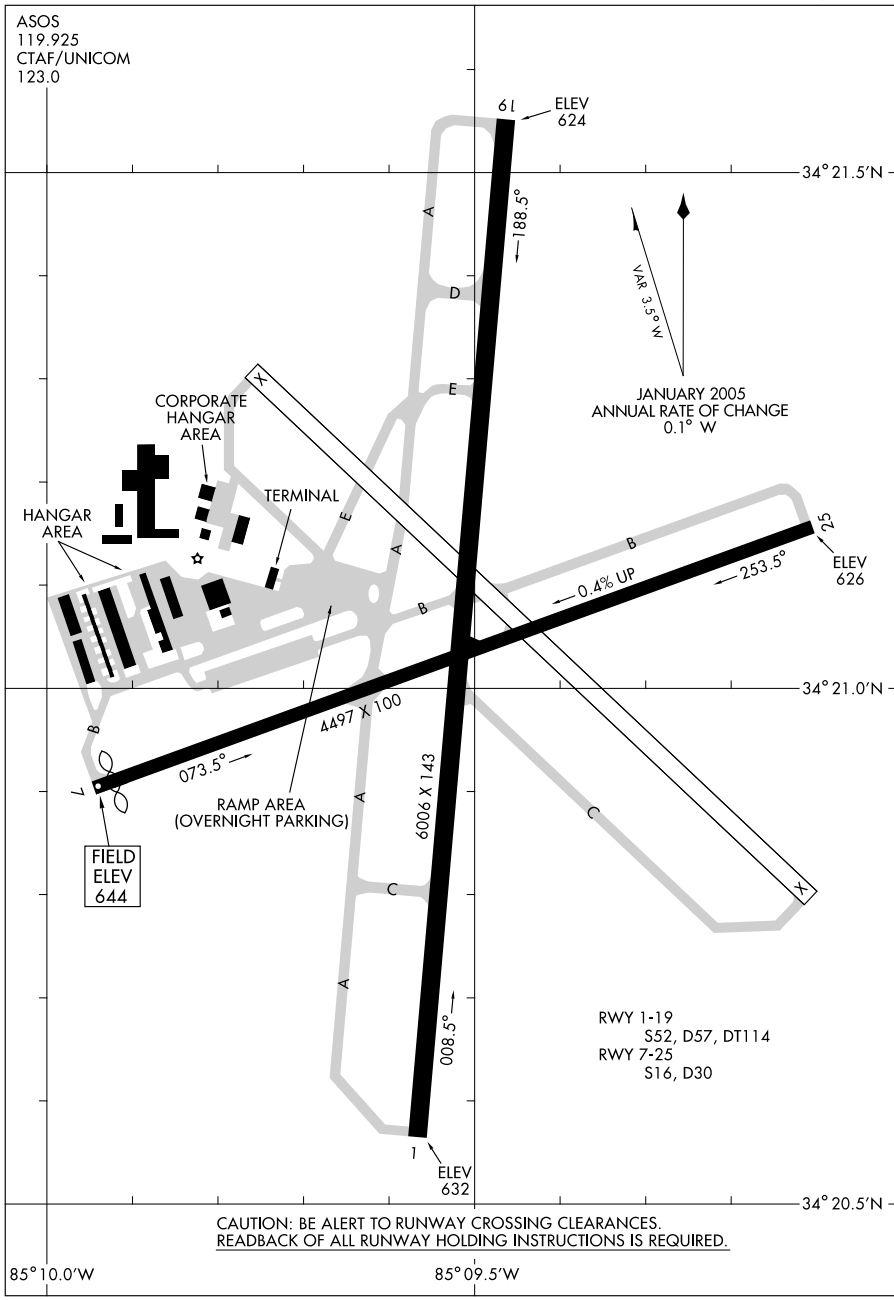

09351
AIRPORT DIAGRAM
AFD-442 [USAF]
ROBINS AFB (KWRB)
WARNER ROBINS, GEORGIA
ATIS 119.475 233.4
ROBINS TOWER
133.225 320.1
GND CON
121.85 275.8
HOT GUN
ARM/DE-ARM
ILS
HOLD
DECEMBER 2009
ANNUAL RATE OF CHANGE
0.1° W
VAR 4.7° W
1000 × 300
ELEV
294
15
D
148.7°
BAK-9
BAK
12/14
480
ANTENNA
ILS
HOLD
J2
J
J1
83° 36′W
FIELD
ELEV
294
J-STARS
RAMP
ANG
APRON
C
ELEV
268
12,001 × 300
HOT
CARGO
PAD
32°39′N
83°35′W
FIRE
STATION
C2
C1
AERO
CLUB
H1
H
CONTROL
TOWER
B
E
G
PARKING
RAMP
ELEV
275
BASE OPS
G1
A
BAK-12/14
328.7°
ILS
HOLD
ILS
HOLD
F
F1
263
BAK-9
13
1000 × 300
ELEV
274
TANKS
457
TANKS
32°38′N
Rwy 15-33
PCN 48 R/B/W/T
AIRPORT DIAGRAM
WARNER ROBINS, GEORGIA
ROBINS AFB (KWRB)

09071

AIRPORT DIAGRAM

AL-855 (FAA)

ROME/ RICHARD B. RUSSELL (RMG)
ROME, GEORGIA



AIRPORT DIAGRAM
09071

ROME, GEORGIA
ROME/ RICHARD B. RUSSELL (RMG)

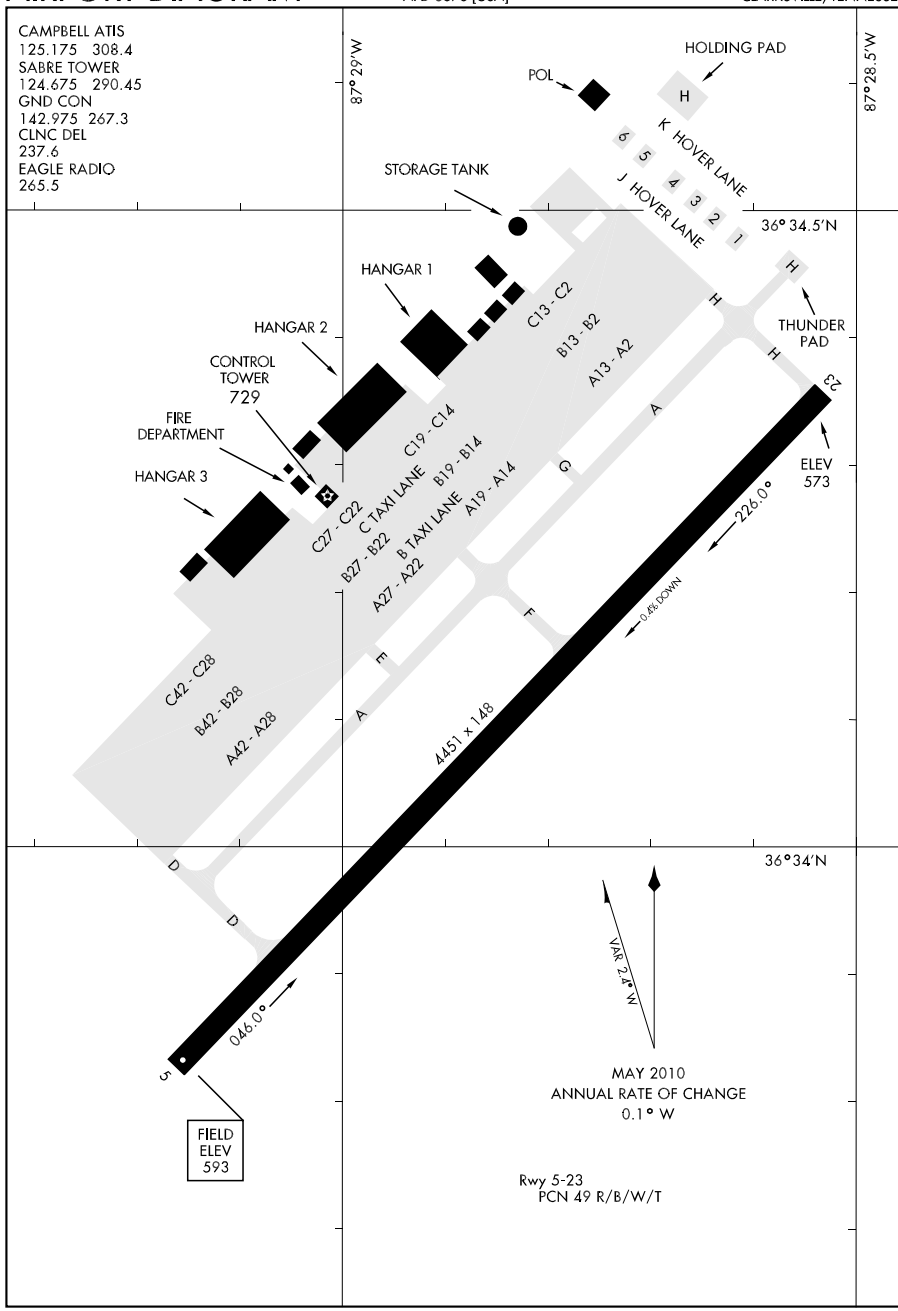
Orig 10126

AIRPORT DIAGRAM

SABRE AHP (FORT CAMPBELL) (KEOD)

AFD-6373 [USA]

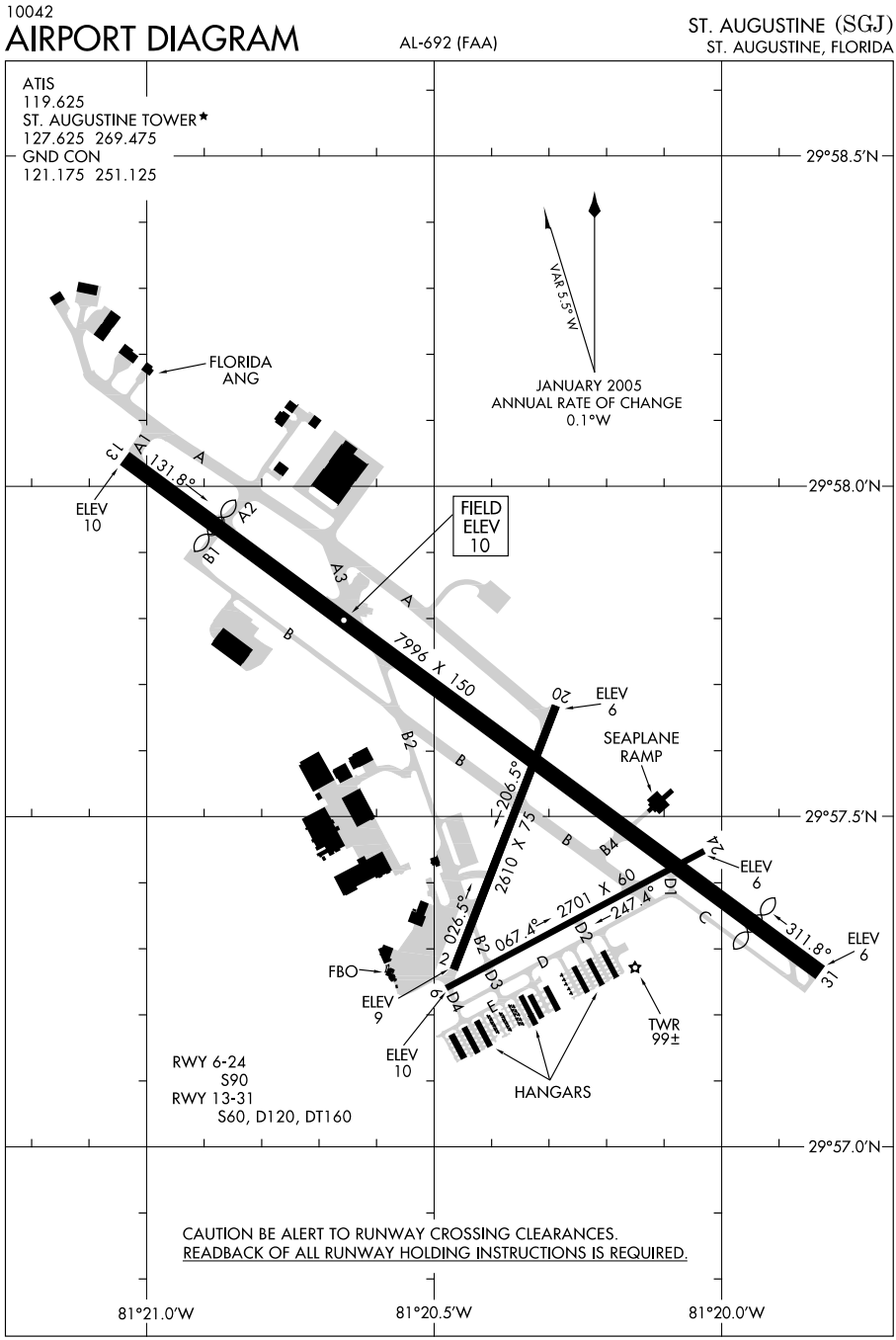
CLARKSVILLE, TENNESSEE



AIRPORT DIAGRAM

CLARKSVILLE, TENNESSEE

SABRE AHP (FORT CAMPBELL) (KEOD)

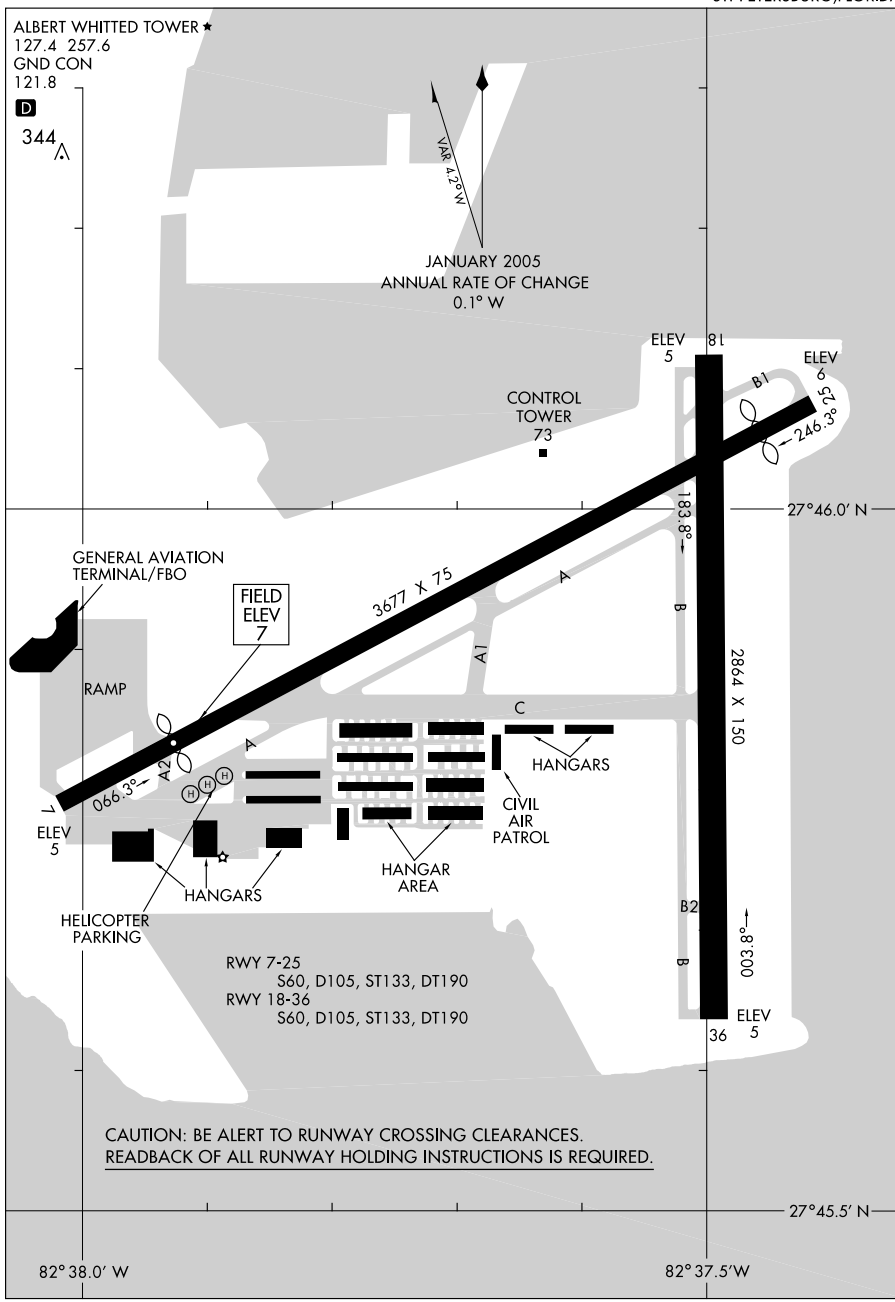

10042
AIRPORT DIAGRAM
AL-692 (FAA)
ST. AUGUSTINE (SGJ)
ST. AUGUSTINE, FLORIDA
ATIS
119.625
ST. AUGUSTINE TOWER★
127.625 269.475
GND CON
121.175 251.125
29°58.5'N
VAR 5.5°W
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W
FLORIDA
ANG
29°58.0'N
ELEV
10
FIELD
ELEV
10
7998 X 150
ELEV
6
SEAPLANE
RAMP
29°57.5'N
206.5°
2610 X 75
2701 X 60
247.4°
026.5°
067.4°
311.8°
ELEV
6
FBO
ELEV
9
TWR
99±
ELEV
10
HANGARS
RWY 6-24
S90
RWY 13-31
S60, D120, DT160
29°57.0'N
CAUTION BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
81°21.0'W
81°20.5'W
81°20.0'W
AIRPORT DIAGRAM
10042
ST. AUGUSTINE, FLORIDA
ST. AUGUSTINE (SGJ)

09015

AIRPORT DIAGRAM

AL-613 (FAA)

ST. PETERSBURG/ALBERT WHITTED (SPG)
ST. PETERSBURG,FLORIDA



AIRPORT DIAGRAM

09015

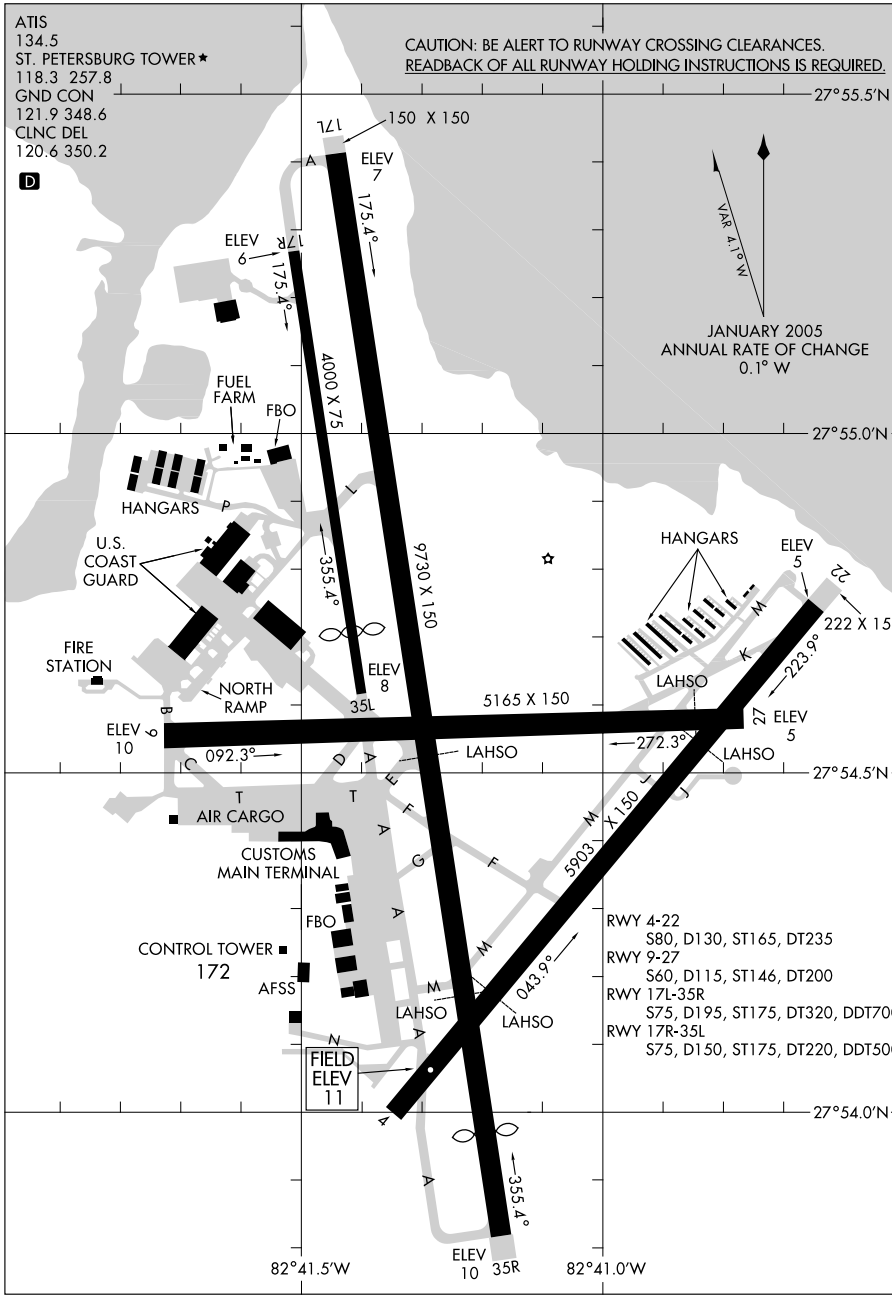
ST. PETERSBURG,FLORIDA
ST. PETERSBURG/ALBERT WHITTED (SPG)

09015

AIRPORT DIAGRAM

ST. PETERSBURG-CLEARWATER INTL (PIE)
ST. PETERSBURG-CLEARWATER, FLORIDA

AL-625 (FAA)



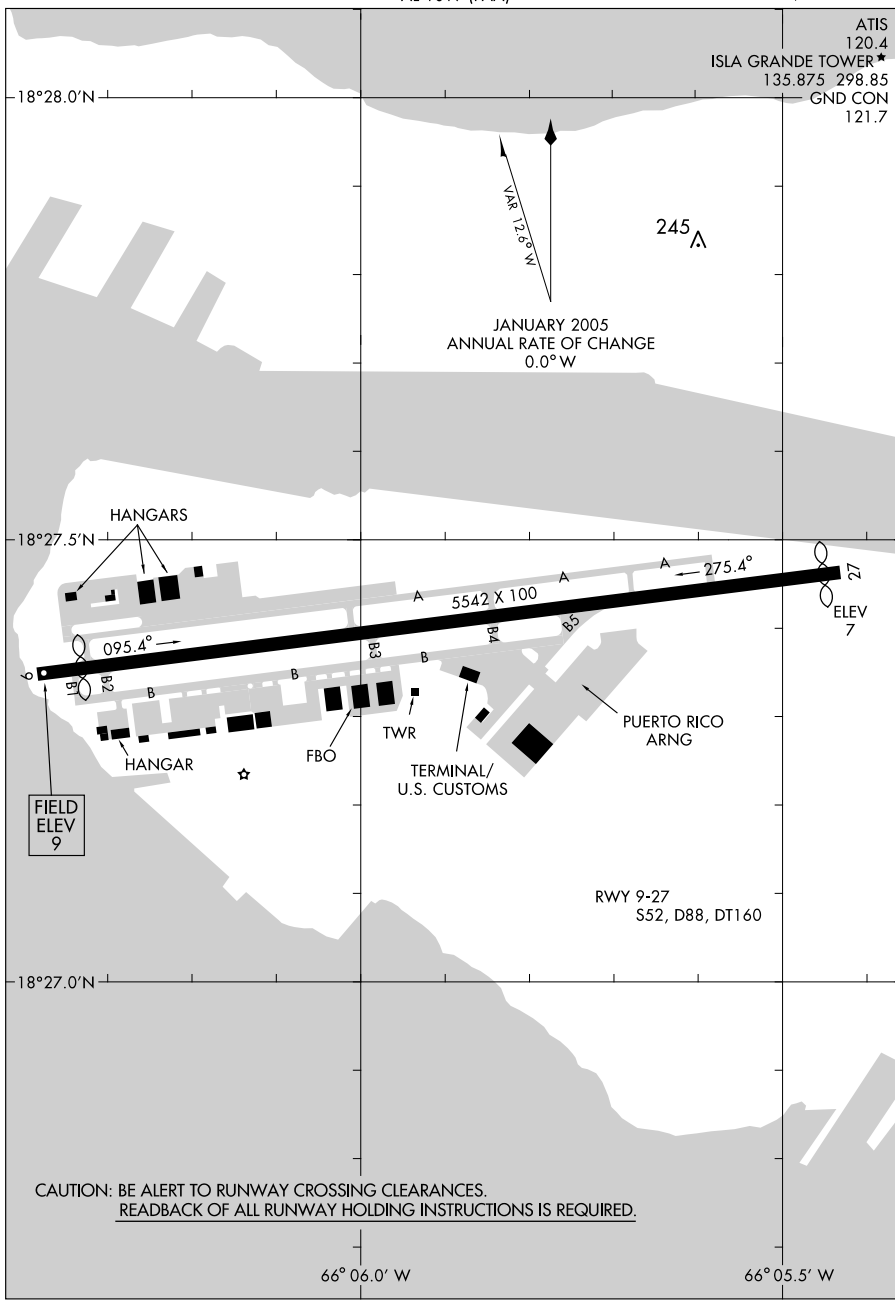
AIRPORT DIAGRAM
09015

ST. PETERSBURG-CLEARWATER, FLORIDA
ST. PETERSBURG-CLEARWATER INTL (PIE)

10154

AIRPORT DIAGRAM

SAN JUAN/ FERNANDO LUIS RIBAS DOMINICCI (SIG)(TJIG)
AL-1019 (FAA)
SAN JUAN, PUERTO RICO



AIRPORT DIAGRAM

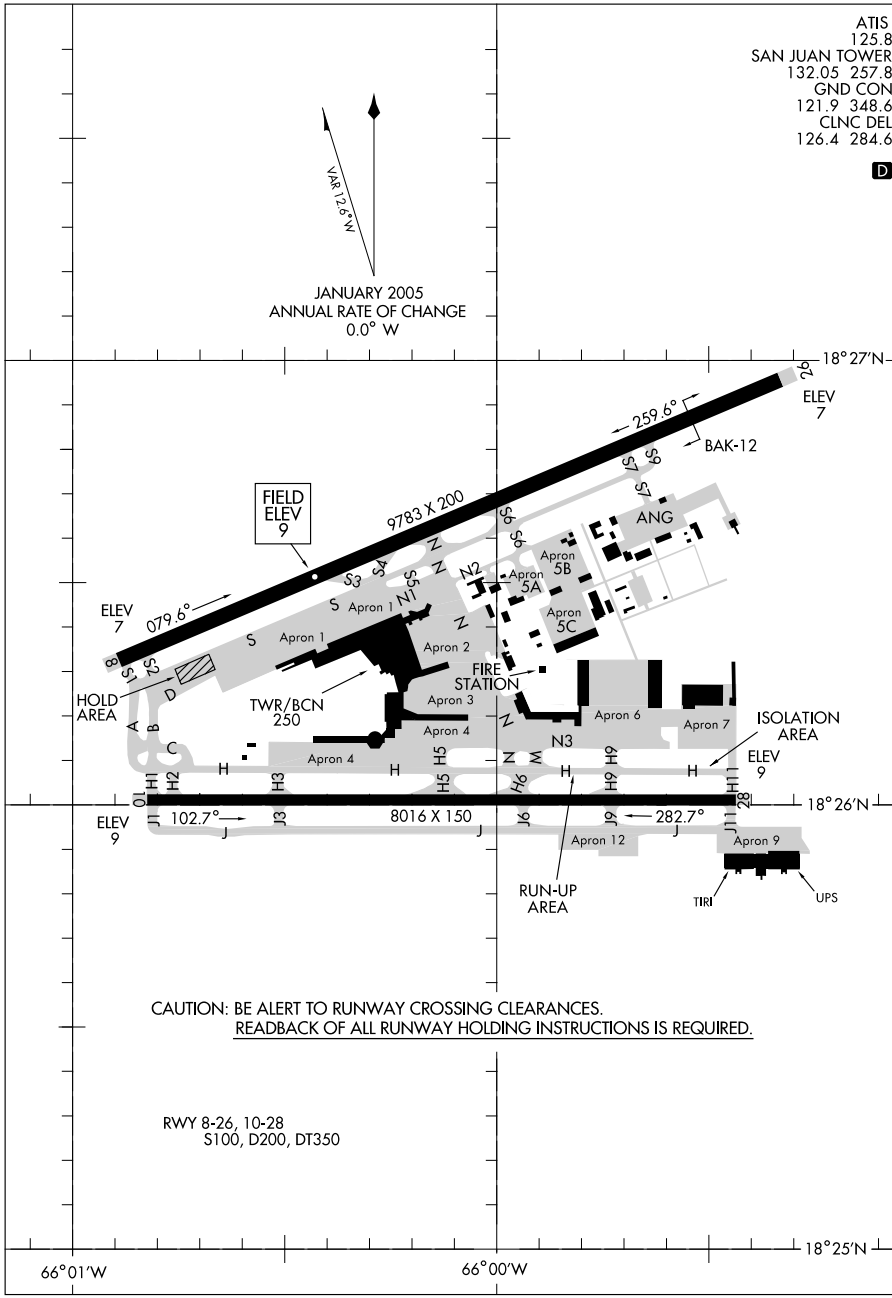
10154

SAN JUAN, PUERTO RICO
SAN JUAN/ FERNANDO LUIS RIBAS DOMINICCI (SIG)(TJIG)

10098

AIRPORT DIAGRAM

SAN JUAN/ LUIS MUNOZ MARIN INTL (SJU)(TJSJ)
AL-784 (FAA)
SAN JUAN, PUERTO RICO



AIRPORT DIAGRAM

10098

SAN JUAN, PUERTO RICO
SAN JUAN/ LUIS MUNOZ MARIN INTL (SJU)(TJSJ)

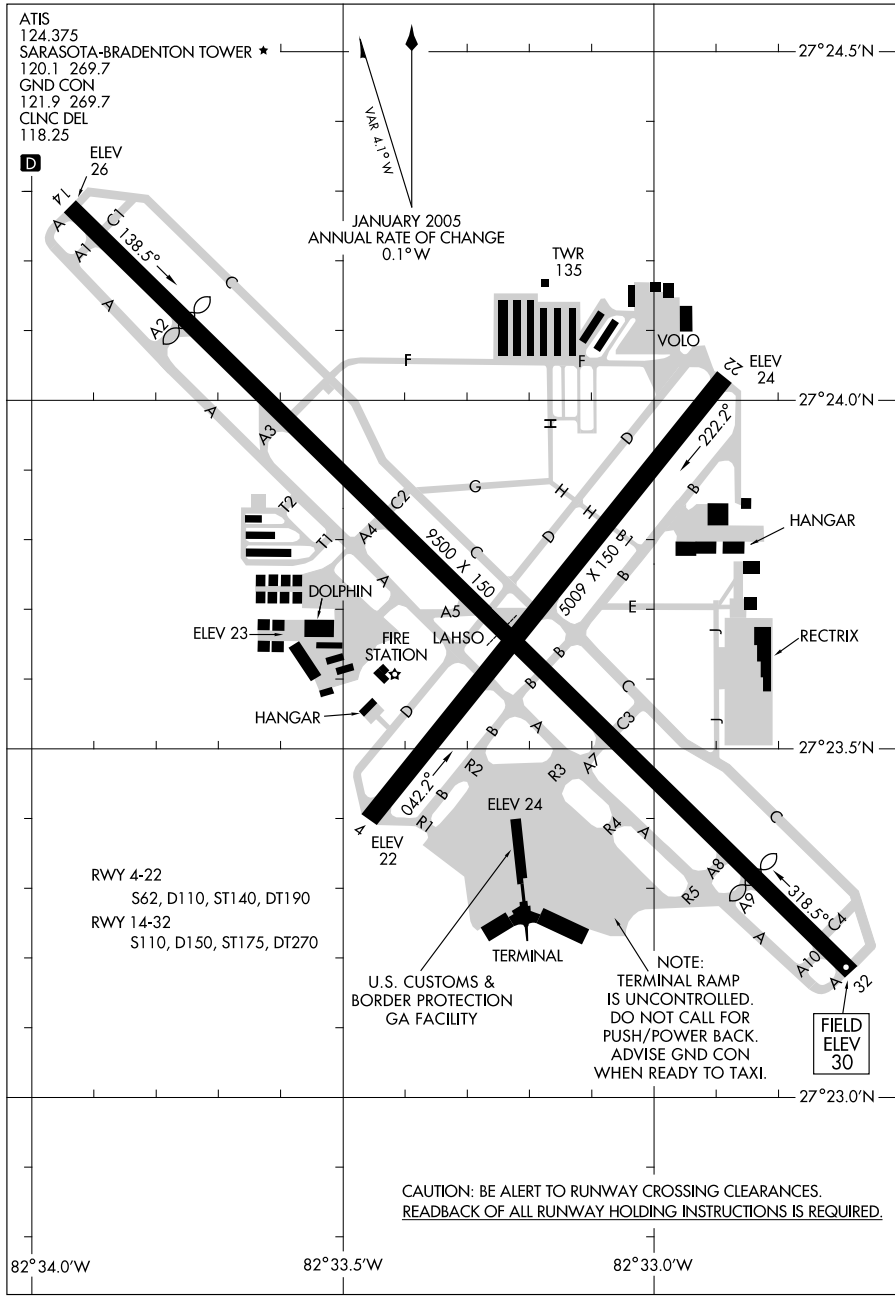
10098

AIRPORT DIAGRAM

AL-640 (FAA)

SARASOTA/BRADENTON INTL (SRQ)

SARASOTA (BRADENTON), FLORIDA



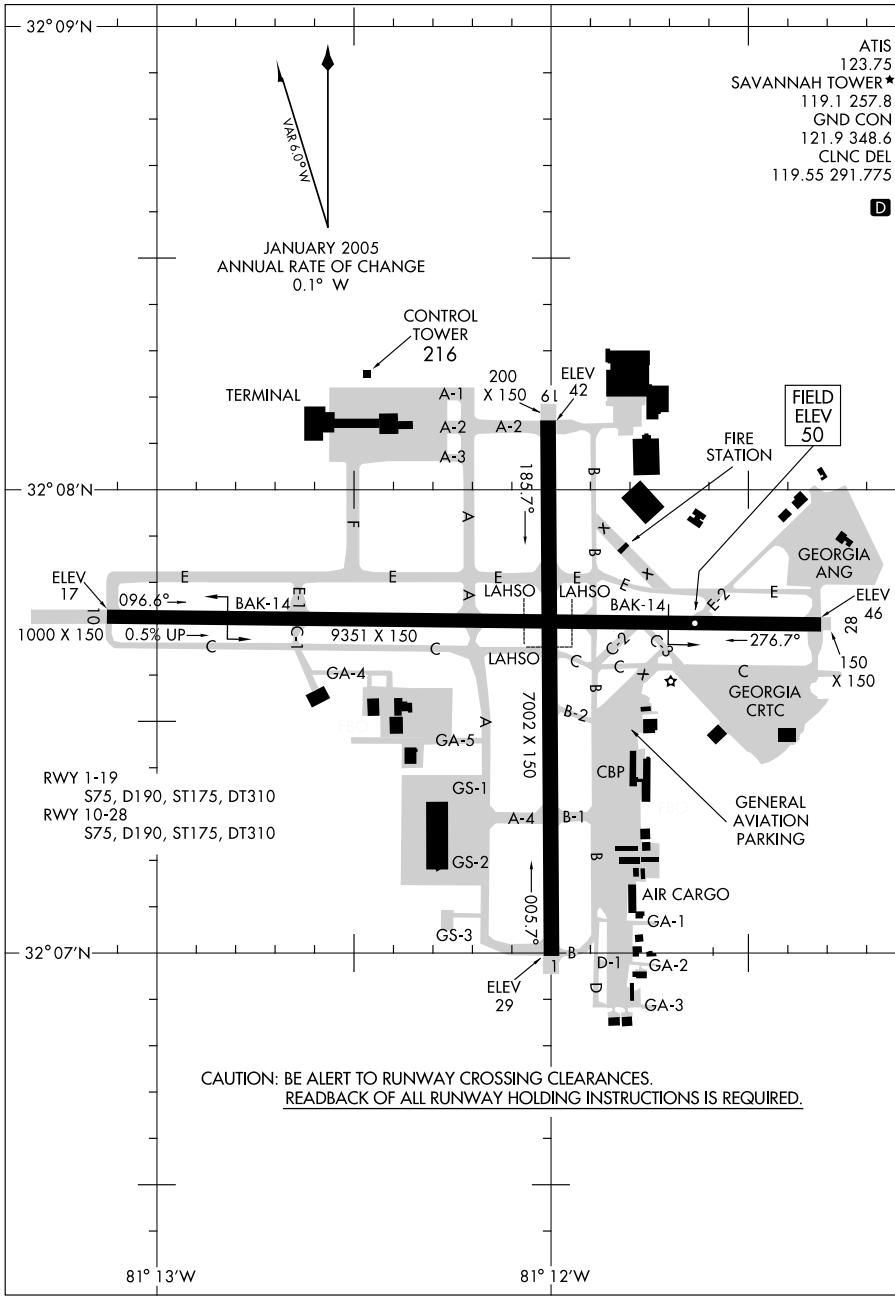
AIRPORT DIAGRAM
10098
SARASOTA (BRADENTON), FLORIDA
SARASOTA/BRADENTON INTL (SRQ)

09183

AIRPORT DIAGRAM

SAVANNAH/HILTON HEAD INTL (SAV)
SAVANNAH, GEORGIA

AL-380 (FAA)



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM
09183
SAVANNAH, GEORGIA
SAVANNAH/HILTON HEAD INTL (SAV)

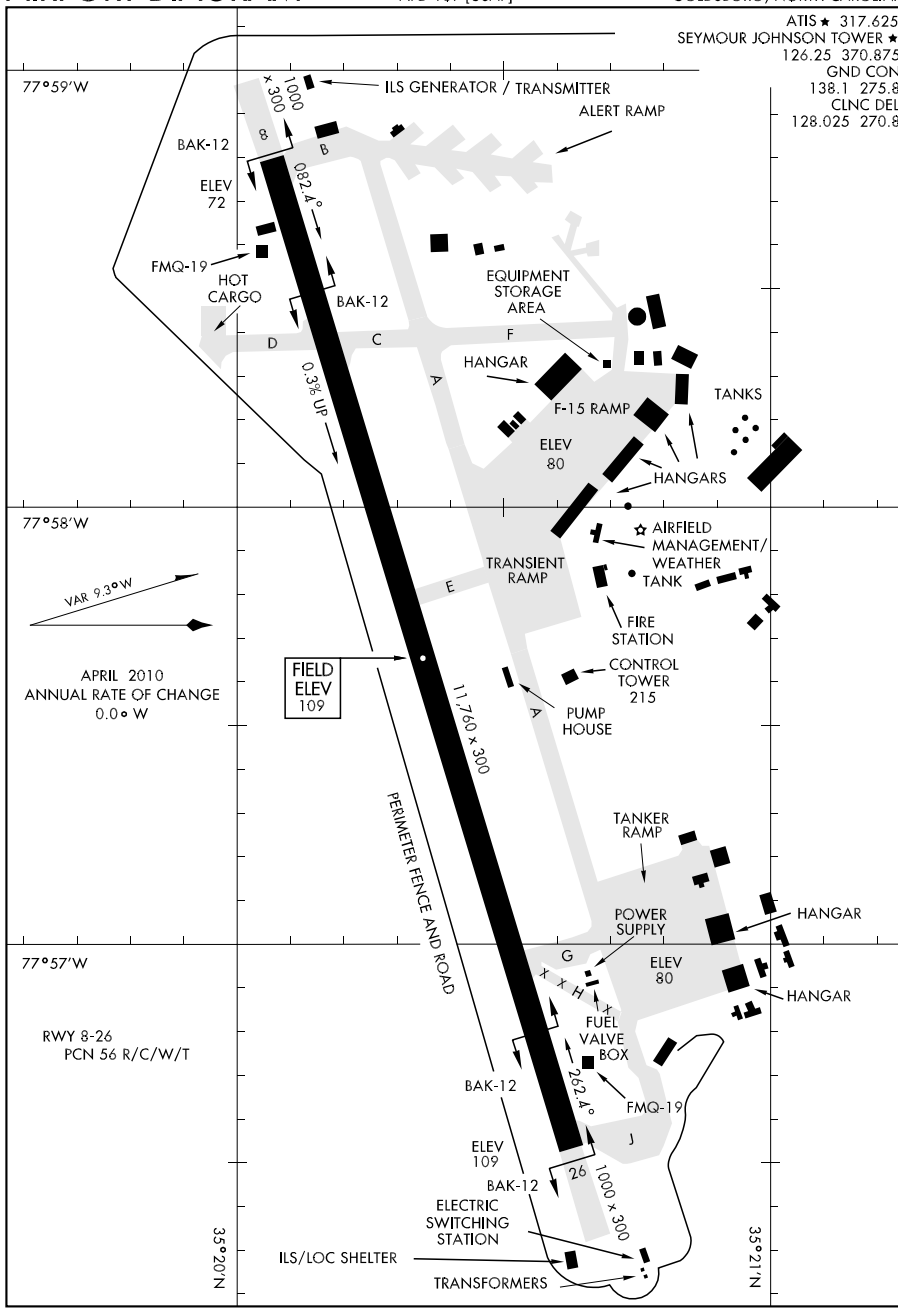
10098

AIRPORT DIAGRAM

SEYMOUR JOHNSON AFB (KGSB)

AFD-169 [USAF]

GOLDSBORO, NORTH CAROLINA



AIRPORT DIAGRAM

GOLDSBORO, NORTH CAROLINA

SEYMOUR JOHNSON AFB (KGSB)

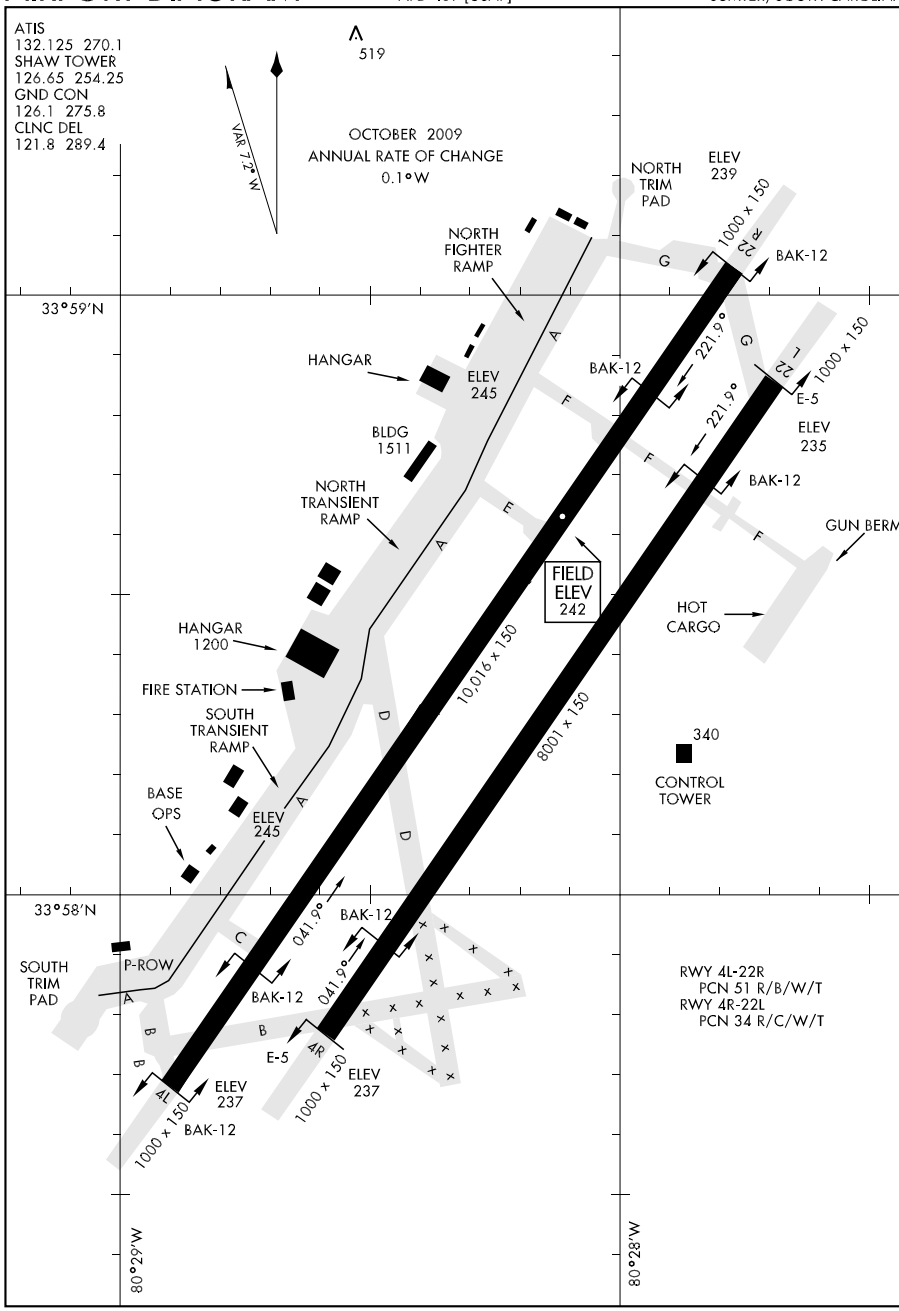
09295

AIRPORT DIAGRAM

AFD-409 [USAF]

SHAW AFB (KSSC)

SUMTER, SOUTH CAROLINA



AIRPORT DIAGRAM

SUMTER, SOUTH CAROLINA

SHAW AFB (KSSC)

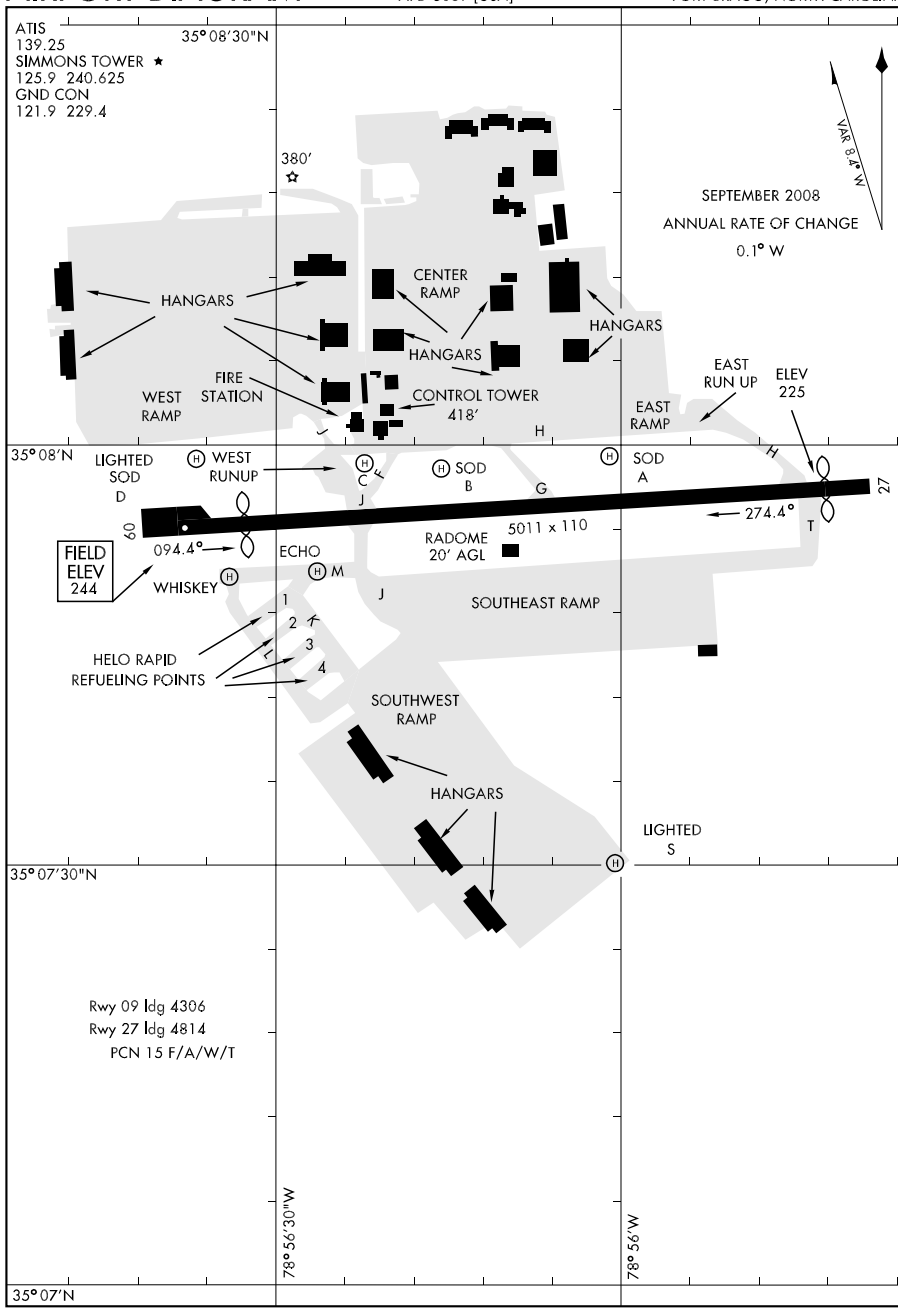
08269

AIRPORT DIAGRAM

AFD-5069 [USA]

SIMMONS AAF (KFBG)

FORT BRAGG, NORTH CAROLINA



AIRPORT DIAGRAM

FORT BRAGG, NORTH CAROLINA

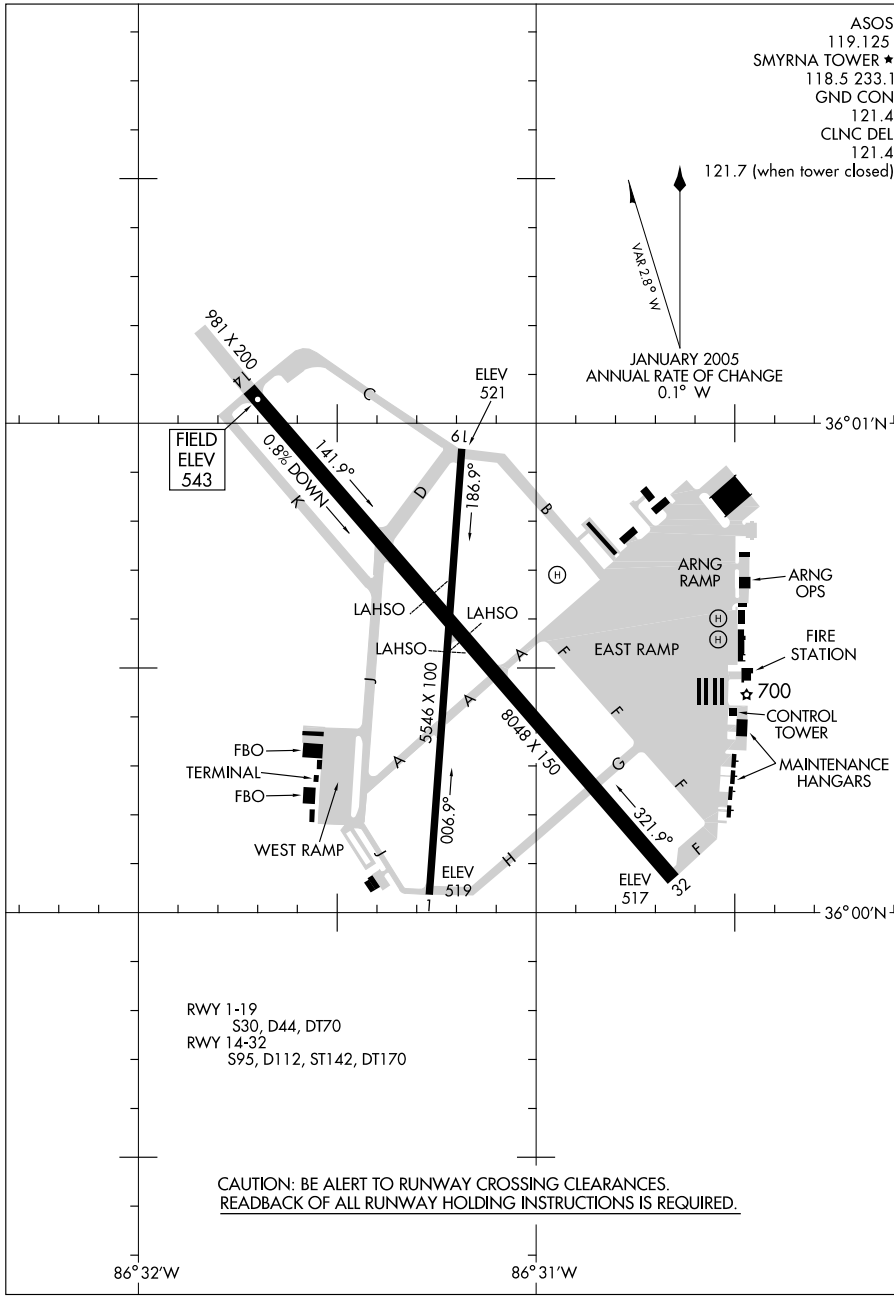
SIMMONS AAF (KFBG)

09351

AIRPORT DIAGRAM

AL-895 (FAA)

SMYRNA (MQY)
SMYRNA, TENNESSEE



RWY 1-19
S30, D44, DT70
RWY 14-32
S95, D112, ST142, DT170

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

09351

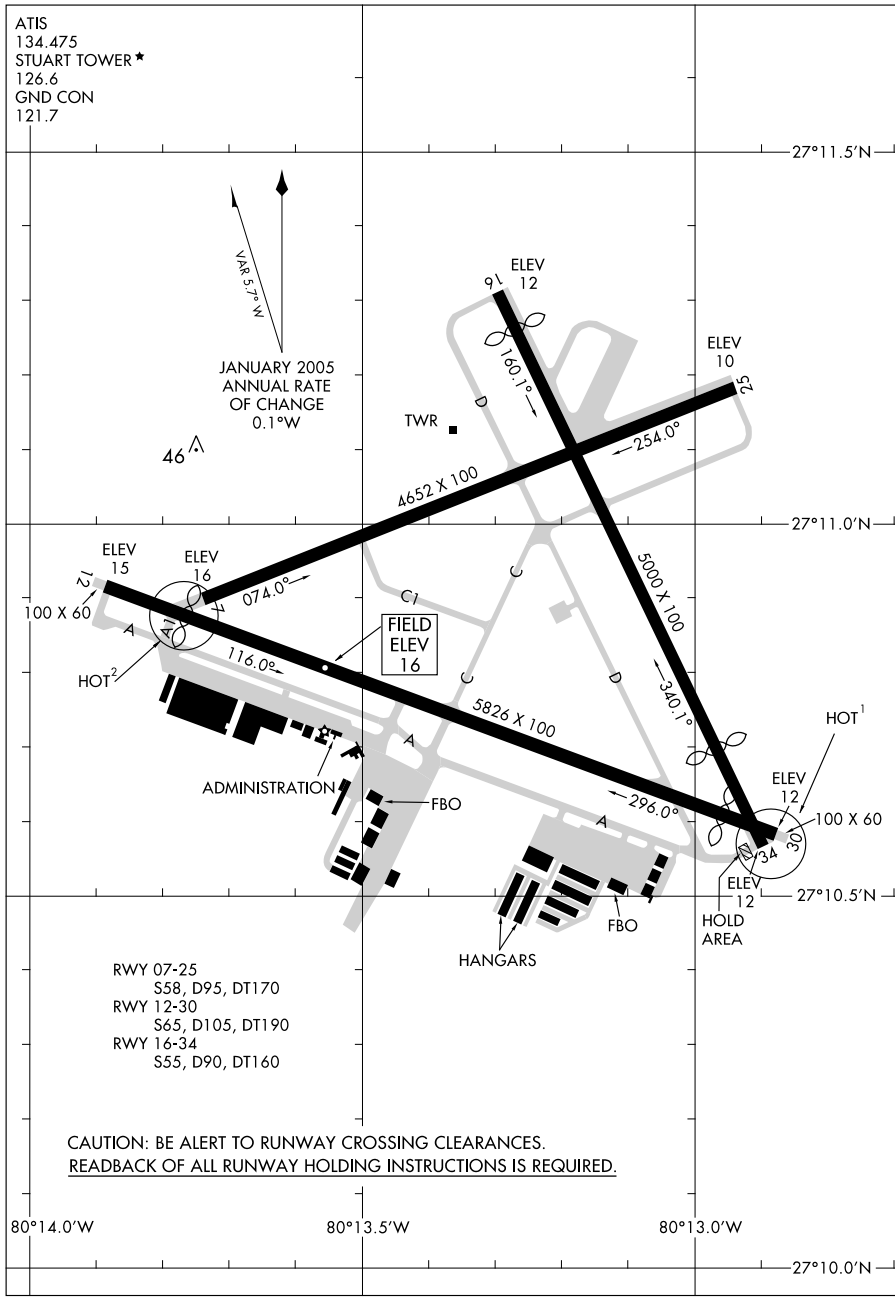
SMYRNA, TENNESSEE
SMYRNA (MQY)

09239

AIRPORT DIAGRAM

AL-9217 (FAA)

STUART/WITHAM FIELD (SUA)
STUART, FLORIDA



AIRPORT DIAGRAM
09239

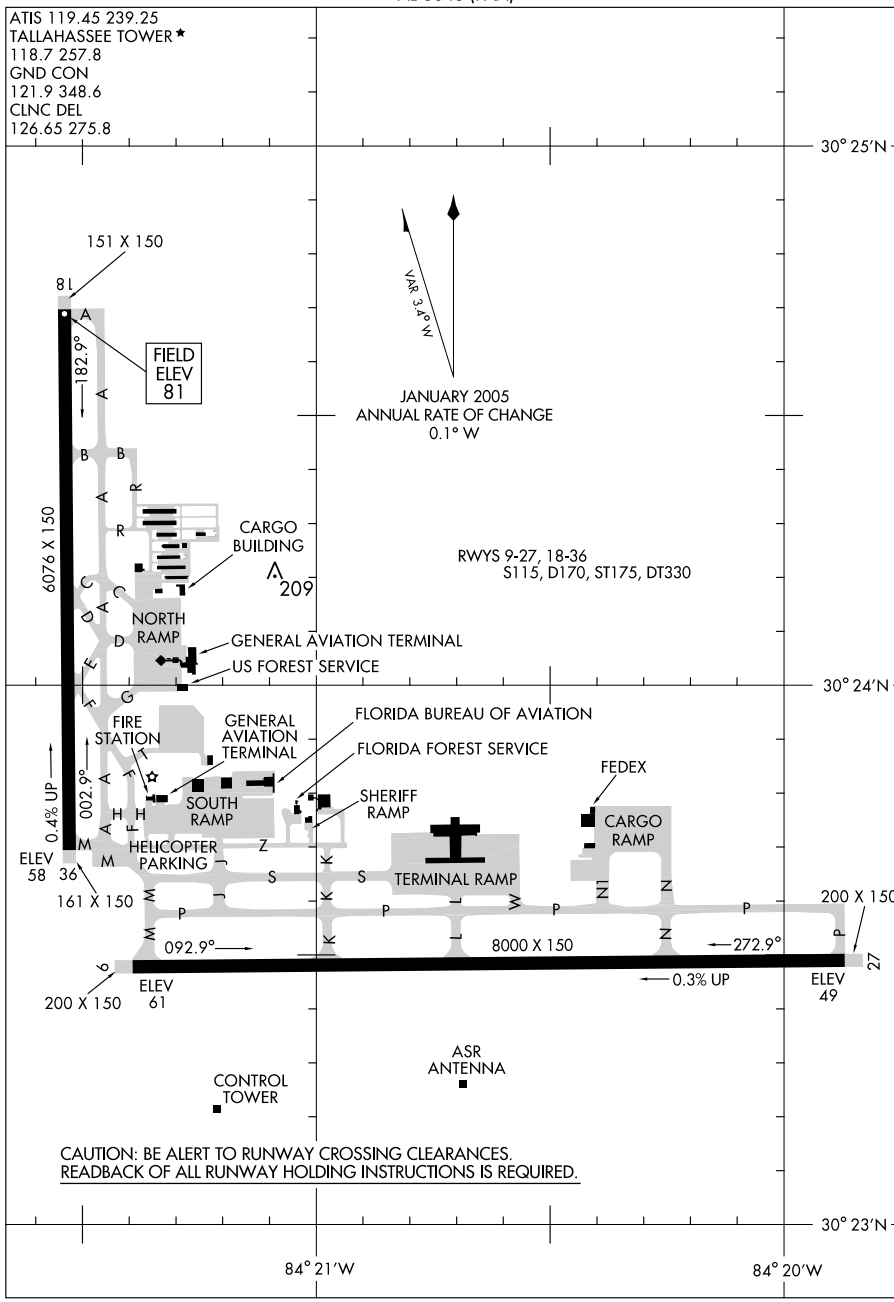
STUART, FLORIDA
STUART/WITHAM FIELD (SUA)

07354

AIRPORT DIAGRAM

AL-5048 (FAA)

TALLAHASSEE RGNL (TLH)
TALLAHASSEE, FLORIDA



AIRPORT DIAGRAM

07354

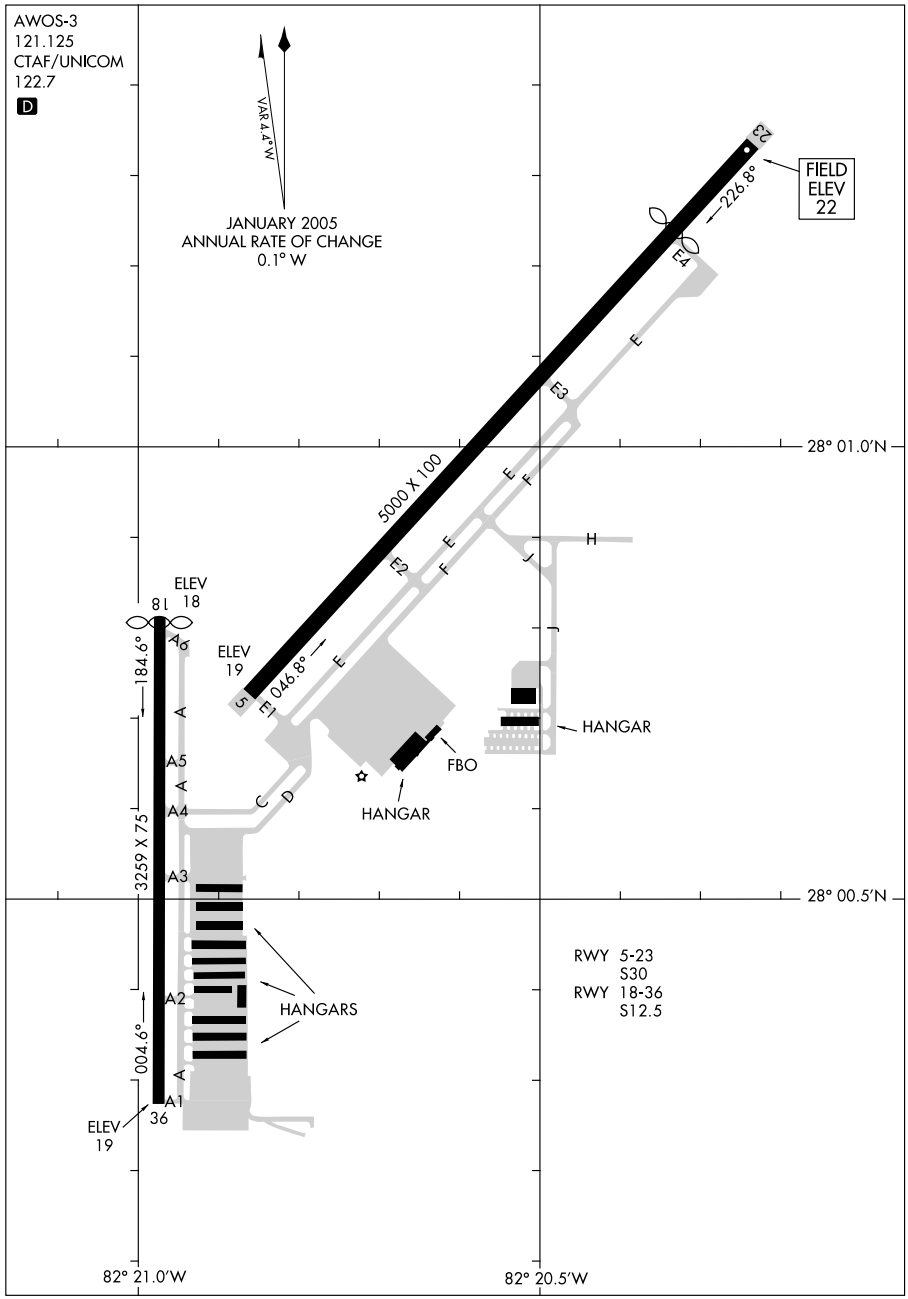
TALLAHASSEE, FLORIDA
TALLAHASSEE RGNL (TLH)

10098

AIRPORT DIAGRAM

AL-9241 (FAA)

TAMPA EXECUTIVE (VDF)
TAMPA, FLORIDA



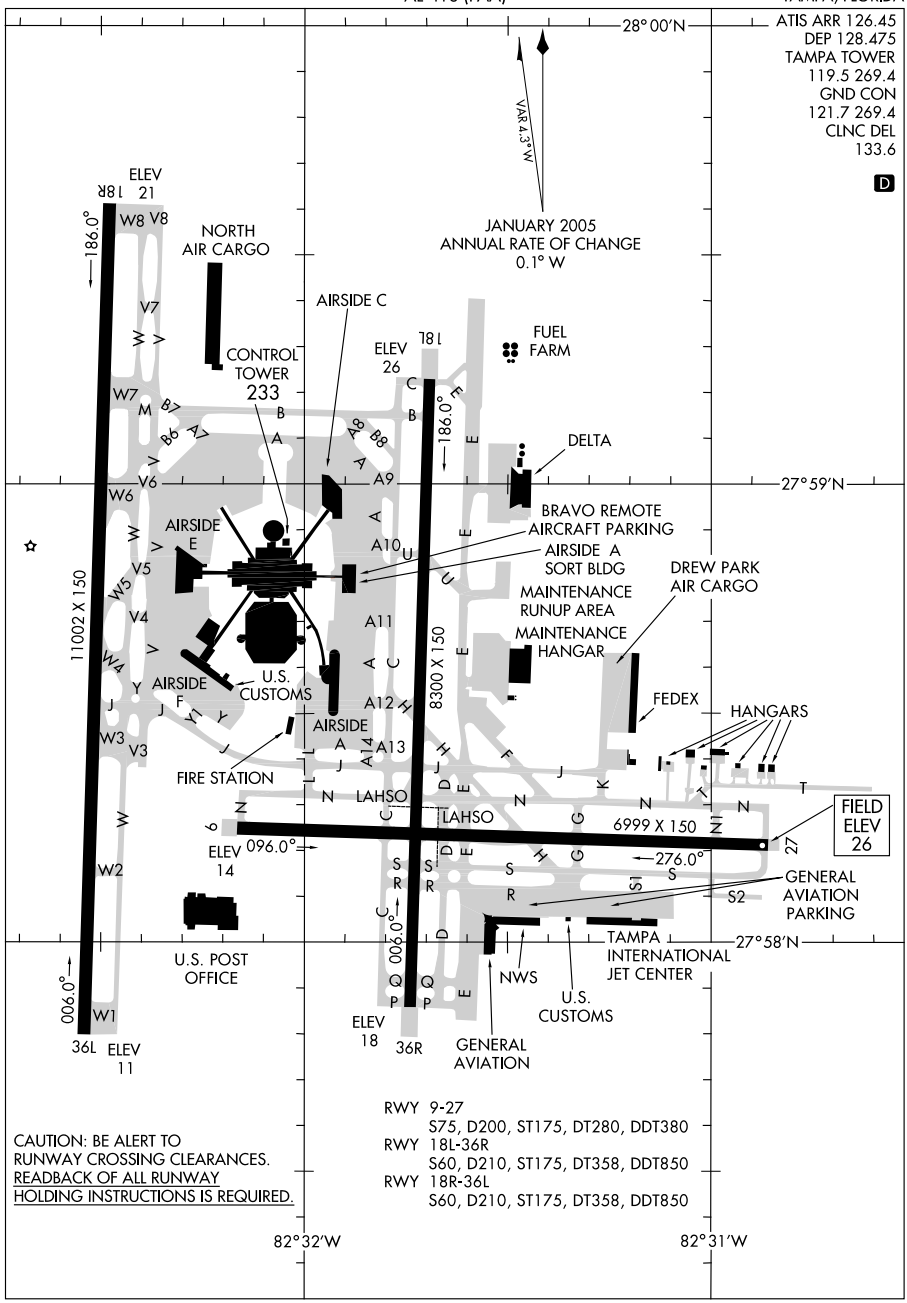
AIRPORT DIAGRAM
10098

TAMPA EXECUTIVE (VDF)
TAMPA, FLORIDA

09183

AIRPORT DIAGRAM

TAMPA INTL (TPA)
TAMPA, FLORIDA



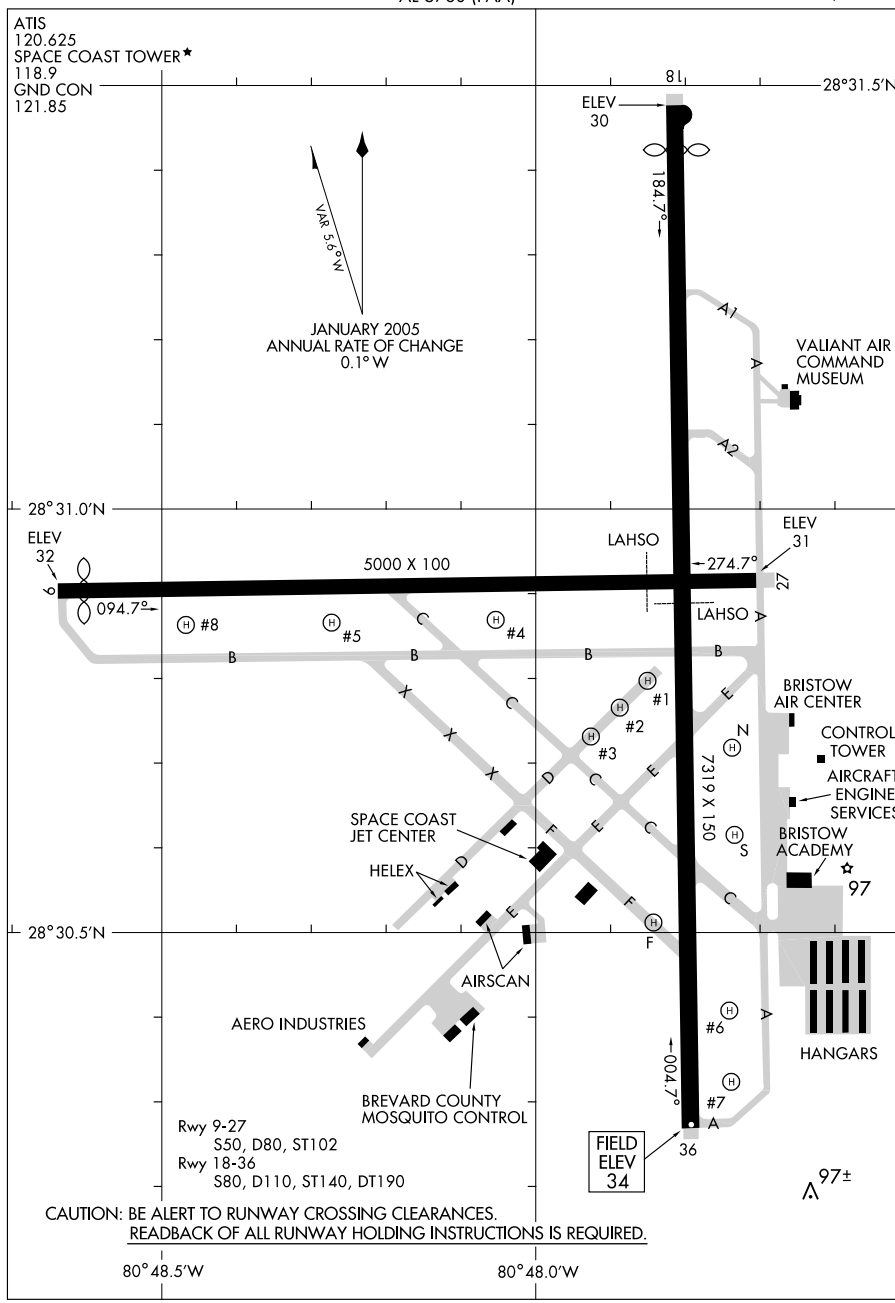
AIRPORT DIAGRAM
09183
TAMPA, FLORIDA
TAMPA INTL (TPA)

09295

AIRPORT DIAGRAM

AL-5760 (FAA)

TITUSVILLE/ SPACE COAST RGNL (TIX)
TITUSVILLE, FLORIDA



AIRPORT DIAGRAM

09295

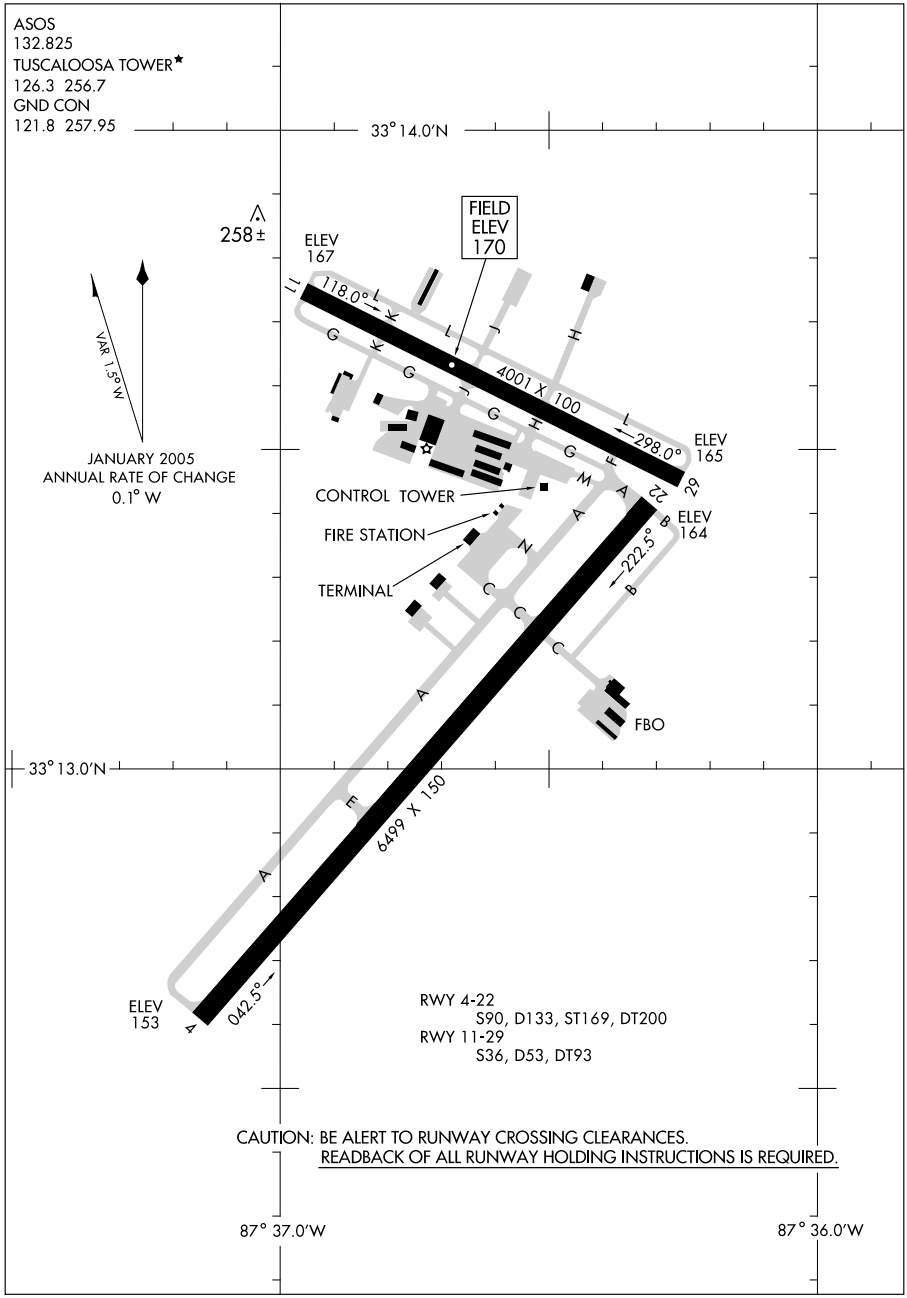
TITUSVILLE, FLORIDA
TITUSVILLE/ SPACE COAST RGNL (TIX)

09071

AIRPORT DIAGRAM

AL-487 (FAA)

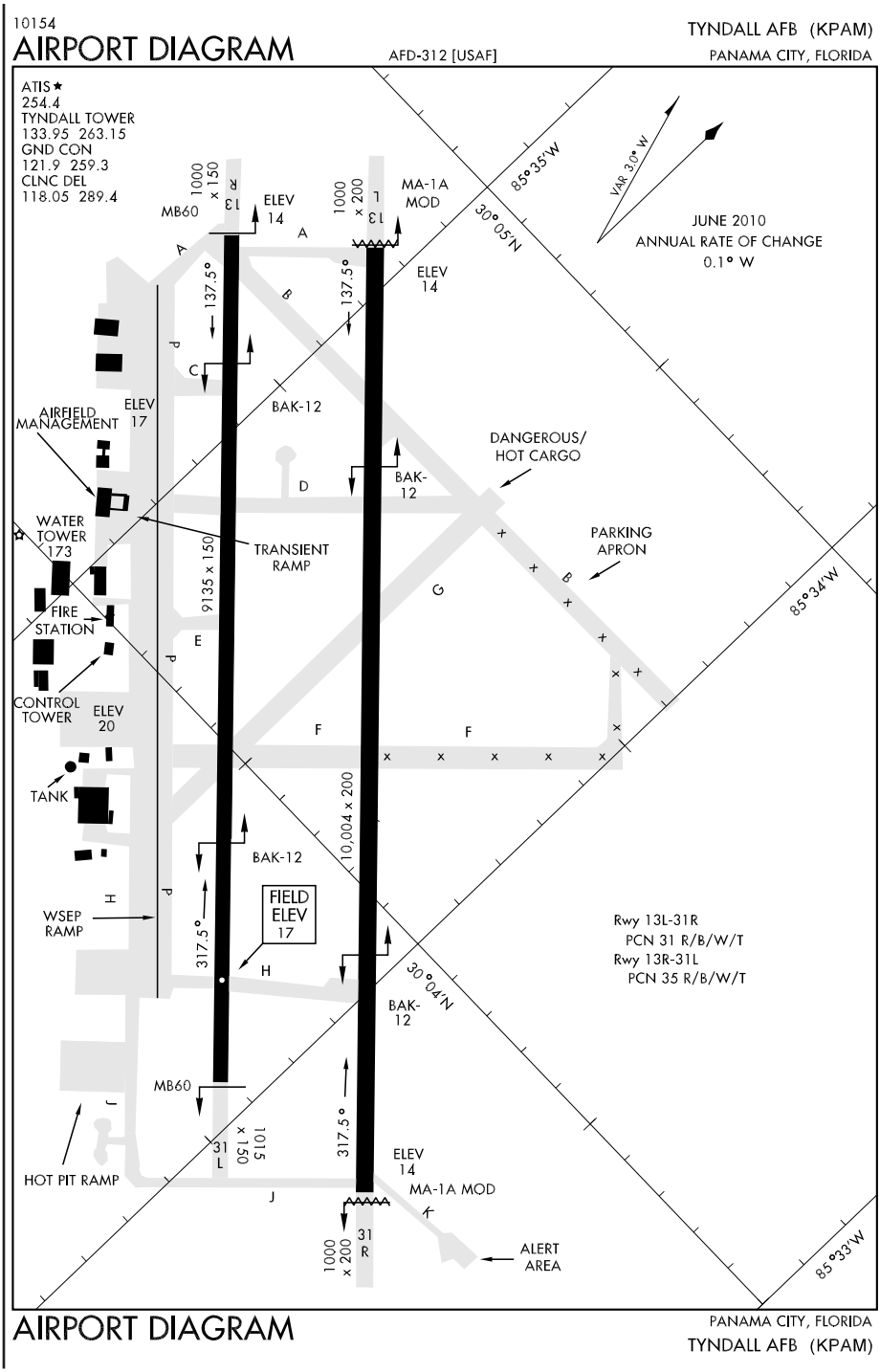
TUSCALOOSA RGNL (TCL)
TUSCALOOSA, ALABAMA



AIRPORT DIAGRAM

09071

TUSCALOOSA, ALABAMA
TUSCALOOSA RGNL (TCL)

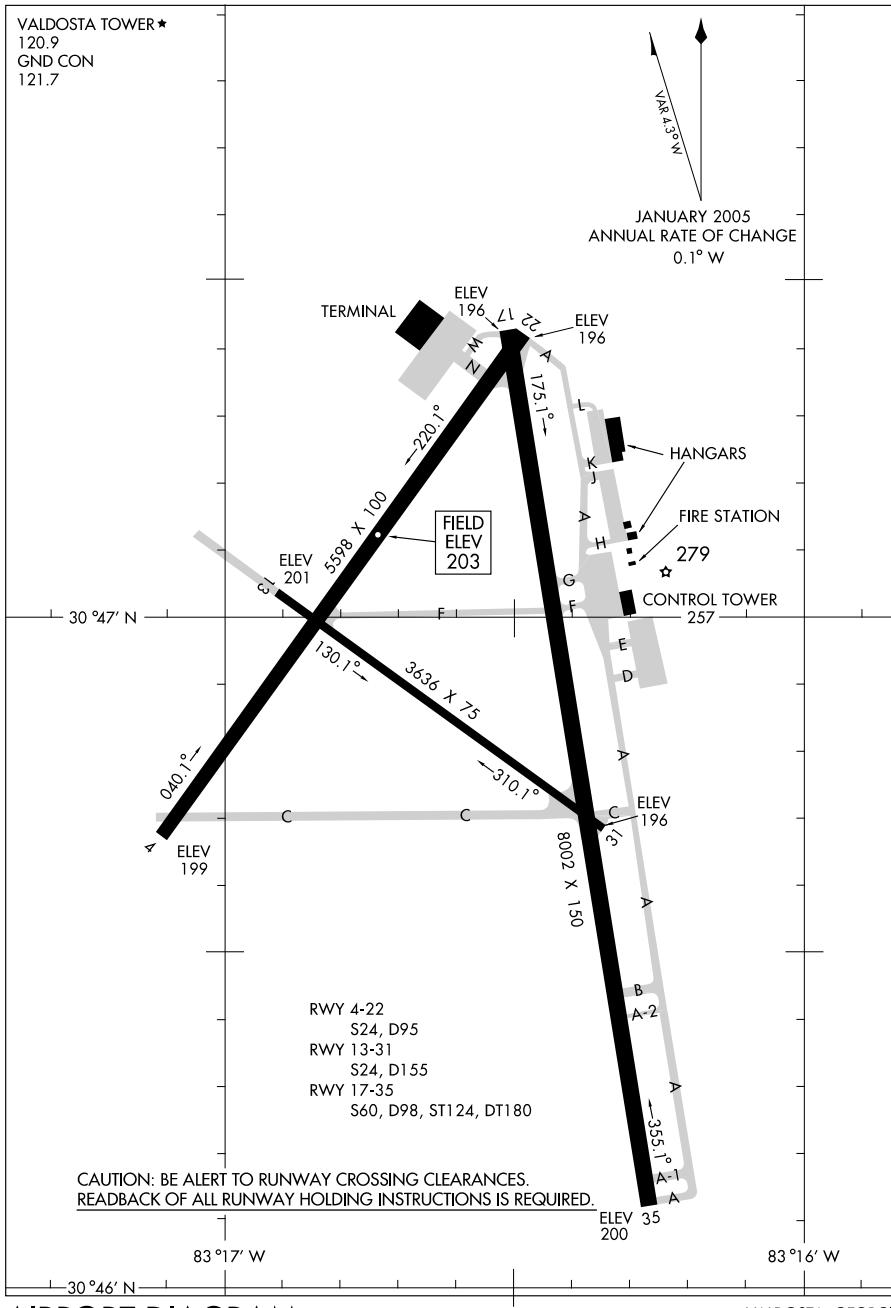

10154
AIRPORT DIAGRAM
TYNDALL AFB (KPAM)
AFD-312 [USAF]
PANAMA CITY, FLORIDA
ATIS ★
254.4
TYNDALL TOWER
133.95 263.15
GND CON
121.9 259.3
CLNC DEL
118.05 289.4
1000 x 150
R 13
MB60
ELEV 14
A
1000 x 200
L 13
MA-1A MOD
85°35'W
VAR 3.0° W
30°05'N
JUNE 2010
ANNUAL RATE OF CHANGE
0.1° W
137.5°
B
ELEV 14
C
BAK-12
AIRFIELD MANAGEMENT
ELEV 17
DANGEROUS/ HOT CARGO
D
BAK-12
WATER TOWER 173
TRANSIENT RAMP
9135 x 150
PARKING APRON
G
85°34'W
FIRE STATION
E
CONTROL TOWER
ELEV 20
F
TANK
10,004 x 200
BAK-12
H
WSEP RAMP
317.5°
FIELD ELEV 17
Rwy 13L-31R
PCN 31 R/B/W/T
Rwy 13R-31L
PCN 35 R/B/W/T
30°04'N
BAK-12
MB60
J
1015 x 150
31 L
317.5°
ELEV 14
MA-1A MOD
HOT PIT RAMP
1000 x 200
31 R
ALERT AREA
85°33'W
AIRPORT DIAGRAM
PANAMA CITY, FLORIDA
TYNDALL AFB (KPAM)

09127

AIRPORT DIAGRAM

AL-892 (FAA)

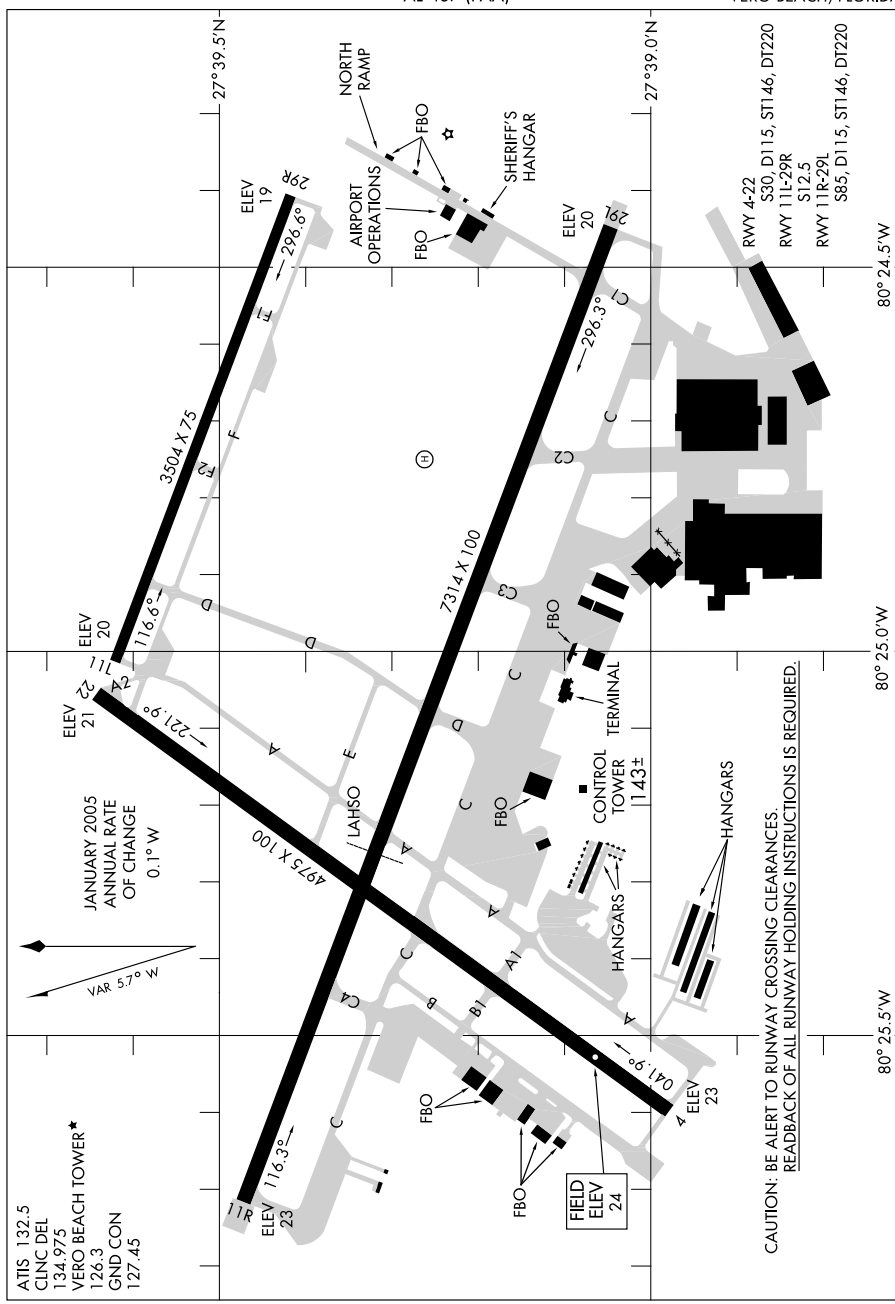
VALDOSTA RGNL (VLD)
VALDOSTA, GEORGIA



AIRPORT DIAGRAM

09127

VALDOSTA, GEORGIA
VALDOSTA RGNL (VLD)

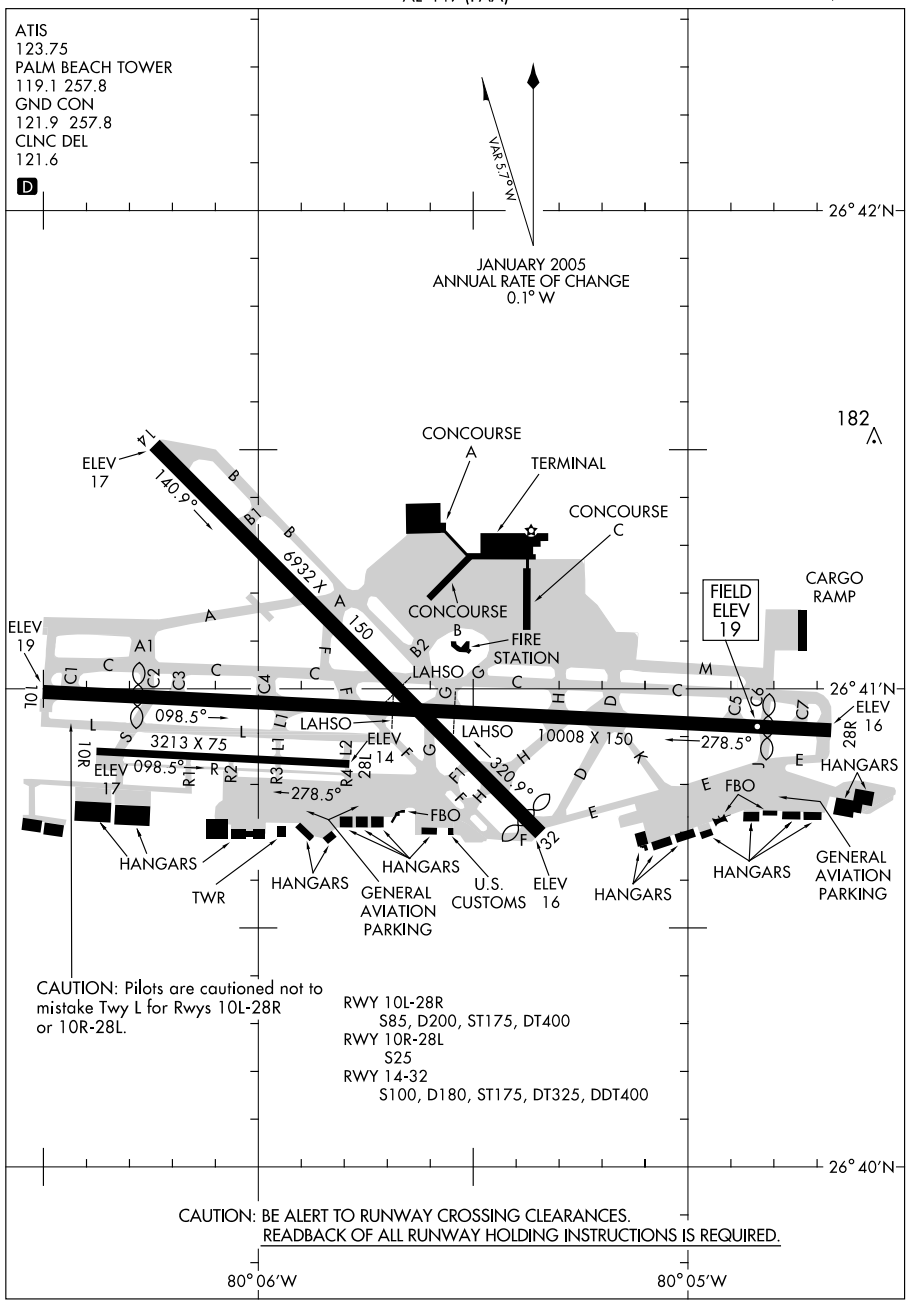

08325
AIRPORT DIAGRAM
AL-437 (FAA)
VERO BEACH MUNI (VRB)
VERO BEACH, FLORIDA
27°39.5'N
27°39.0'N
80°24.5'W
80°25.0'W
80°25.5'W
NORTH RAMP
FBO
SHERIFF'S HANGAR
AIRPORT OPERATIONS
ELEV 19
29R
296.6°
3504 X 75
ELEV 20
11L
116.6°
ELEV 21
22
221.9°
4975 X 100
ELEV 23
11R
116.3°
ELEV 20
29L
296.3°
7314 X 100
FBO
TERMINAL
CONTROL TOWER
143±
HANGARS
LAHSO
041.9°
ELEV 23
4
FIELD ELEV 24
JANUARY 2005
ANNUAL RATE
OF CHANGE
0.1° W
VAR 5.7° W
RWY 4-22
S30, D115, ST146, DT220
RWY 11L-29R
S12.5
RWY 11R-29L
S85, D115, ST146, DT220
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
ATIS 132.5
CLNC DEL
134.975
VERO BEACH TOWER*
126.3
GND CON
127.45
AIRPORT DIAGRAM
08325
VERO BEACH, FLORIDA
VERO BEACH MUNI (VRB)

10098

AIRPORT DIAGRAM

WEST PALM BEACH/PALM BEACH INTL (PBI)
WEST PALM BEACH, FLORIDA

AL-449 (FAA)



AIRPORT DIAGRAM

WEST PALM BEACH, FLORIDA
WEST PALM BEACH/PALM BEACH INTL (PBI)

10098

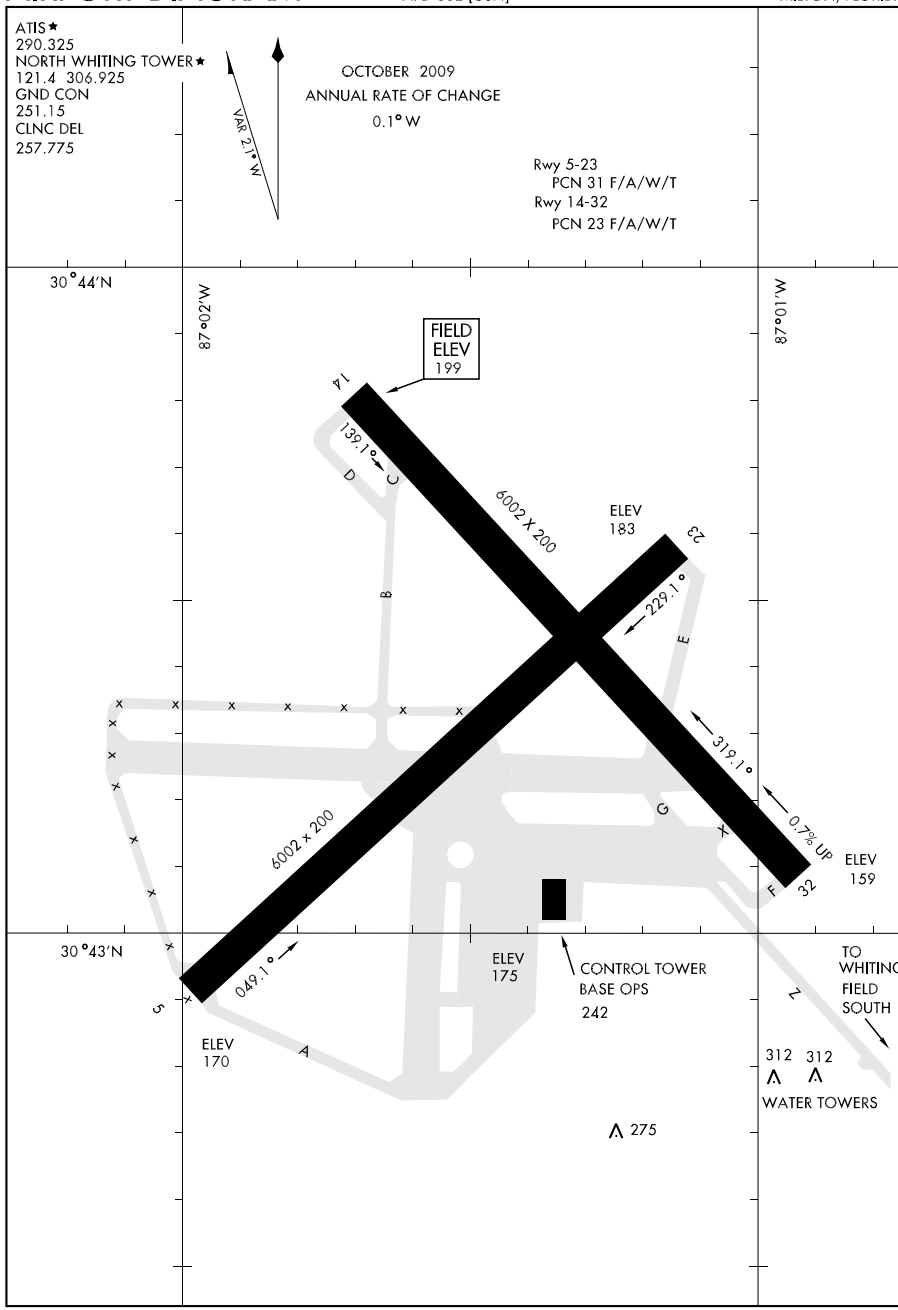
09295

AIRPORT DIAGRAM

WHITING FLD NAS (NORTH) (KNSE)

AFD-602 [USN]

MILTON, FLORIDA



AIRPORT DIAGRAM

MILTON, FLORIDA

WHITING FLD NAS (NORTH) (KNSE)

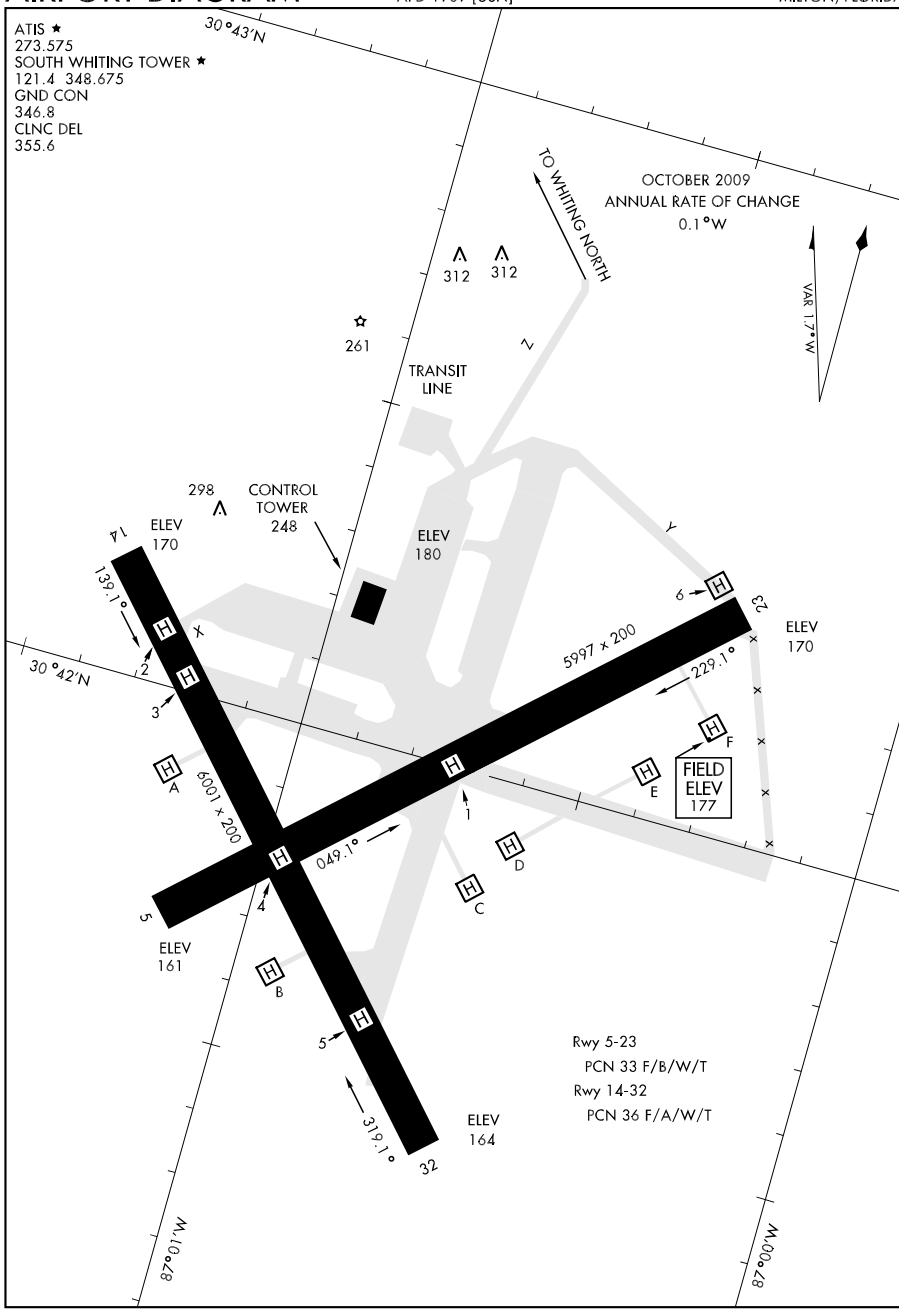
09295

AIRPORT DIAGRAM

WHITING FLD NAS (SOUTH) (KNDZ)

AFD-1909 [USN]

MILTON, FLORIDA



AIRPORT DIAGRAM

MILTON, FLORIDA

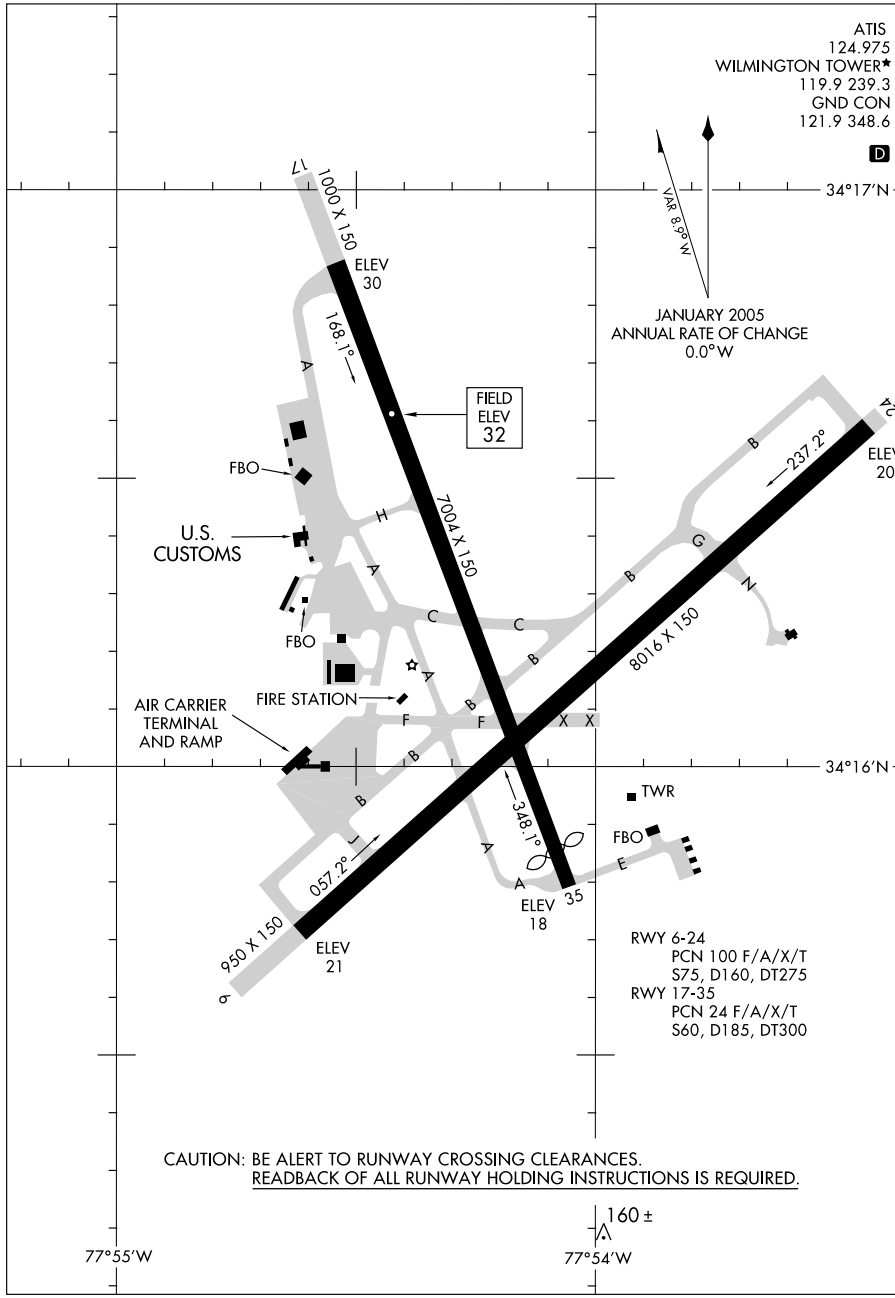
WHITING FLD NAS (SOUTH) (KNDZ)

09295

AIRPORT DIAGRAM

AL-459 (FAA)

WILMINGTON INTL (ILM)
WILMINGTON, NORTH CAROLINA



AIRPORT DIAGRAM

09295

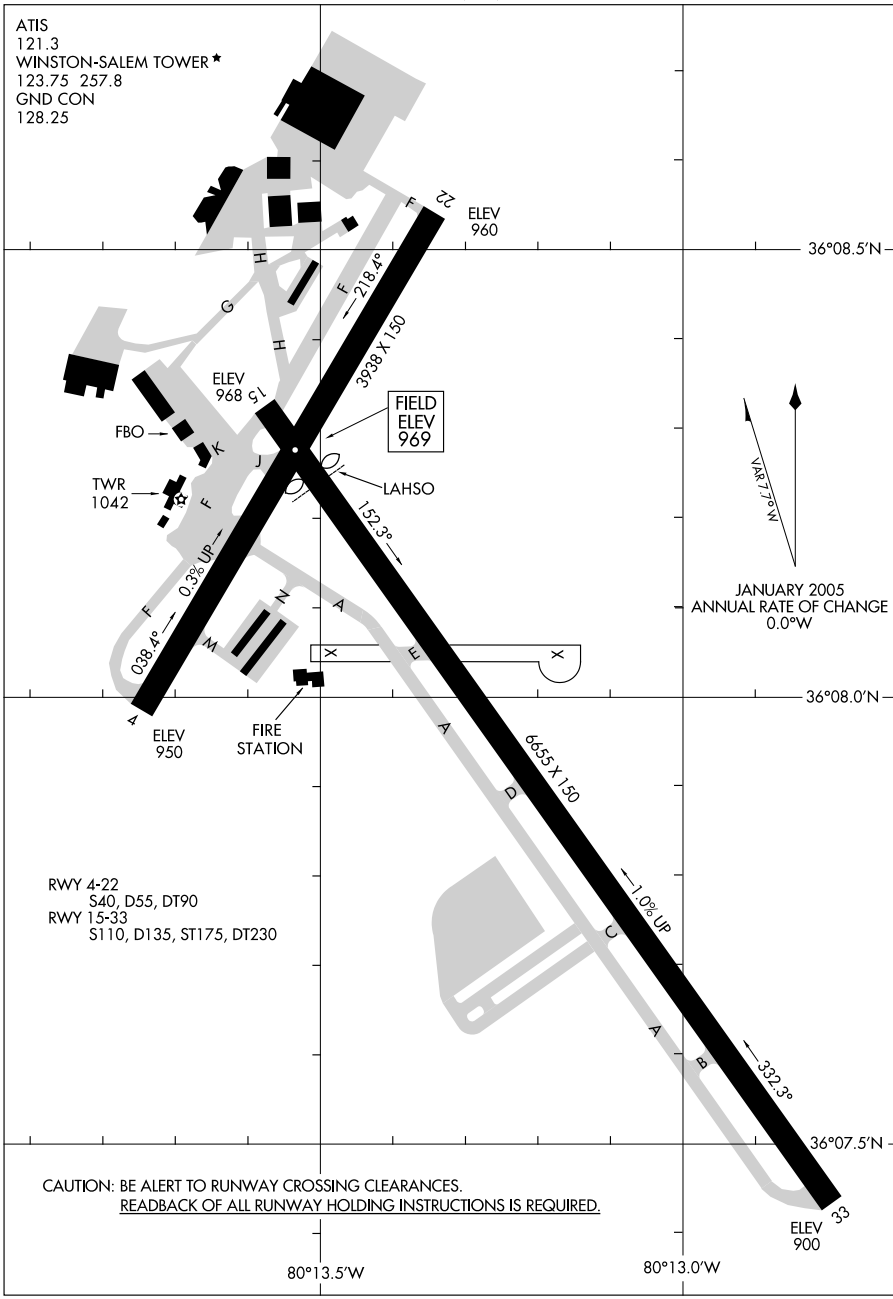
WILMINGTON, NORTH CAROLINA
WILMINGTON INTL (ILM)

09295

AIRPORT DIAGRAM

WINSTON-SALEM /SMITH REYNOLDS (INT)
WINSTON-SALEM, NORTH CAROLINA

AL-463 (FAA)

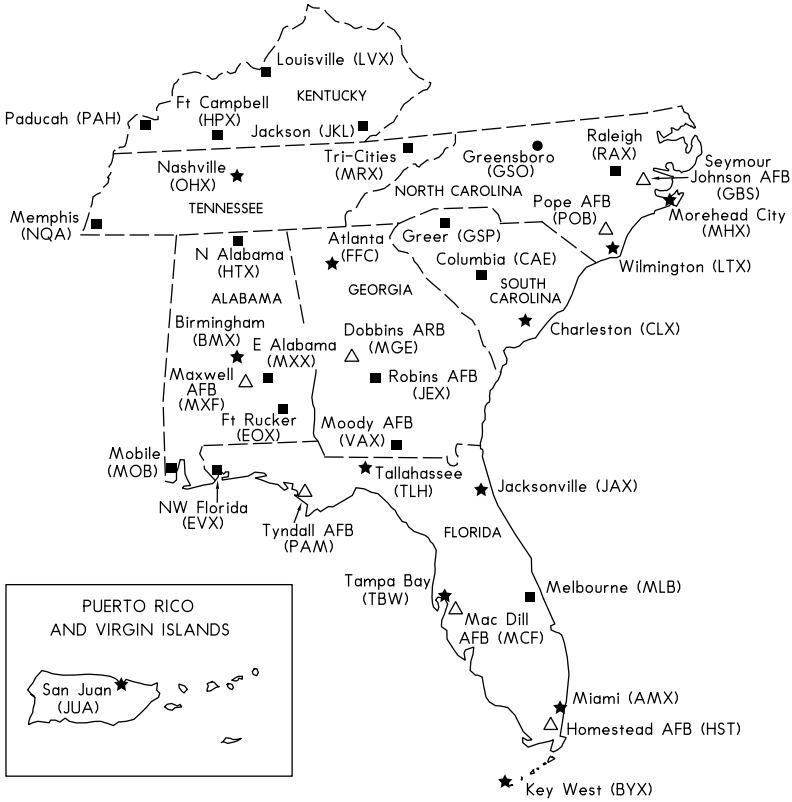


AIRPORT DIAGRAM

09295

WINSTON-SALEM, NORTH CAROLINA
WINSTON-SALEM /SMITH REYNOLDS (INT)

NATIONAL WEATHER SERVICE (NWS)
UPPER AIR OBSERVING STATIONS (UAOS)
AND
WEATHER RADAR NETWORK



LEGEND

△ AVIATION WEATHER SERVICE (MILITARY)

▲ AIR TRAFFIC CONTROL RADAR

★ UPPER AIR OBSERVING STATION/RADAR

■ RADAR ONLY

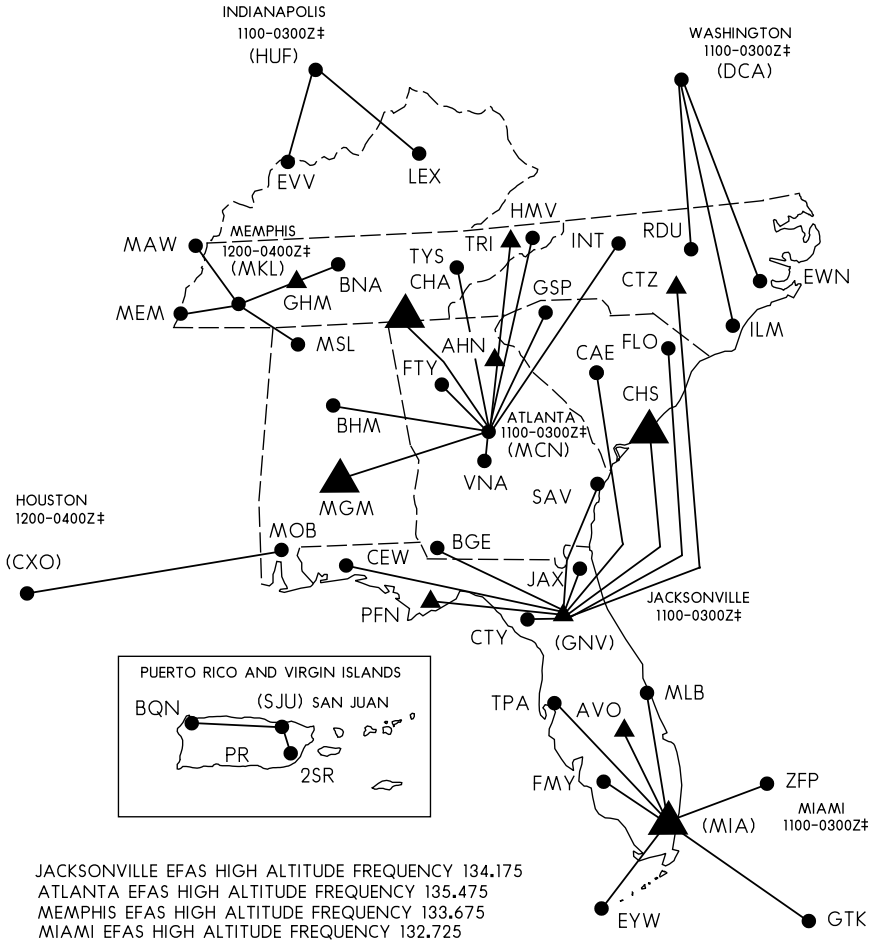
● UAOS-BALLOON RELEASE AROUND 1100 UTC AND 2300 UTC DAILY

O OTHER NWS UPPER AIR STATIONS-BALLOON RELEASE TIMES ARE FLEXIBLE BUT GENERALLY AROUND SUNRISE AND/OR EARLY AFTERNOON

NOTE: FOR RELEASE LATER THAN 1130 UTC AND 2330 UTC, AND FOR SPECIAL RELEASES AT OTHER THAN THE SCHEDULED HOURS, AN AERONAUTICAL INFORMATION MESSAGE WILL BE FILED.

ENROUTE FLIGHT ADVISORY SERVICE (EFAS)

See Aeronautical Information Manual (AIM) for available services



JACKSONVILLE EFAS HIGH ALTITUDE FREQUENCY 134.175
ATLANTA EFAS HIGH ALTITUDE FREQUENCY 135.475
MEMPHIS EFAS HIGH ALTITUDE FREQUENCY 133.675
MIAMI EFAS HIGH ALTITUDE FREQUENCY 132.725
WASHINGTON EFAS HIGH ALTITUDE FREQUENCY 134.525

● LOW ALTITUDE COMMUNICATIONS OUTLET (122.0)

▲ HIGH ALTITUDE COMMUNICATIONS OUTLET

▲ BOTH LOW AND HIGH ALTITUDE COMMUNICATIONS OUTLET